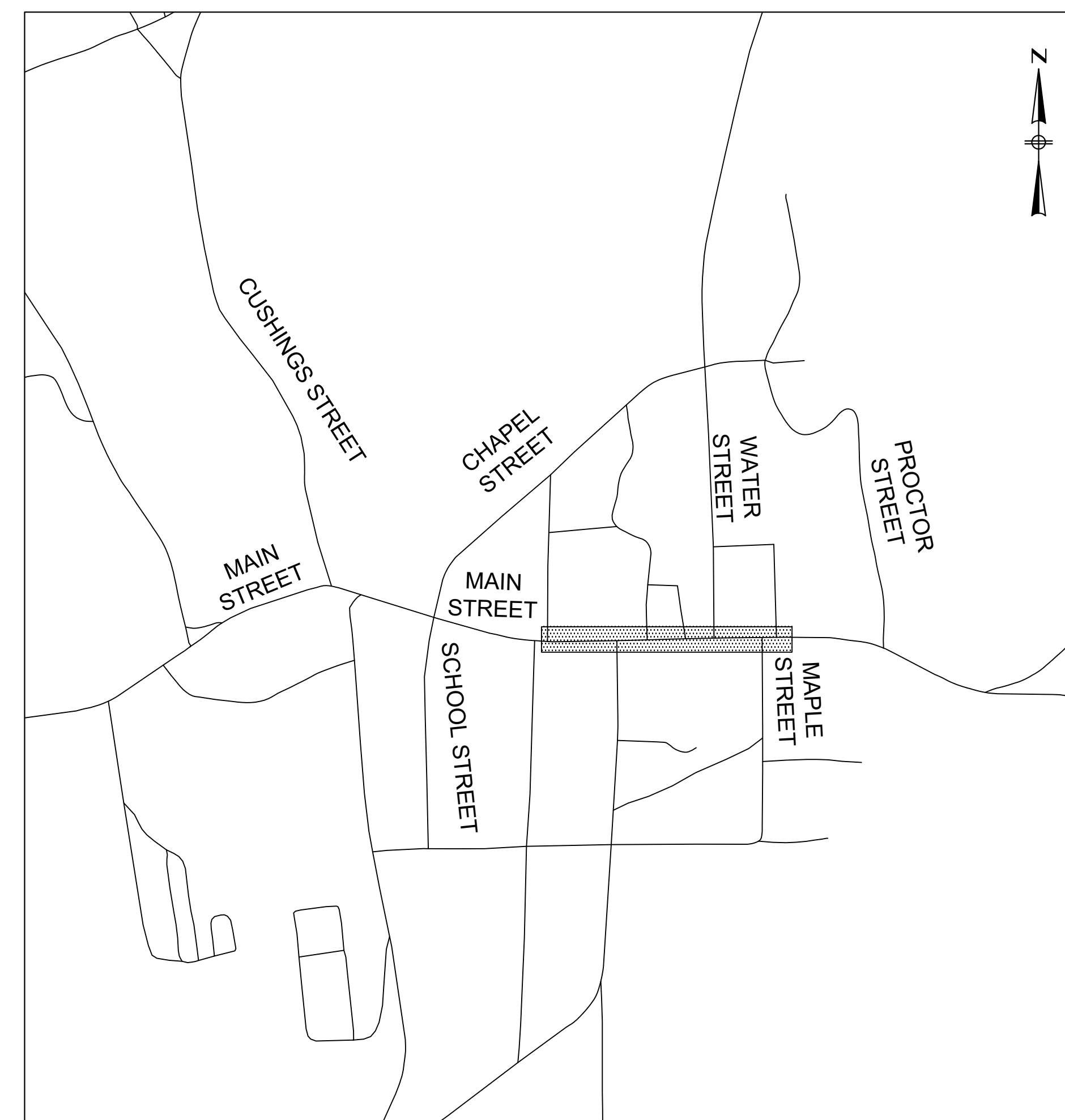


TOWN OF ASHBURNHAM, MA DEPARTMENT OF PUBLIC WORKS

MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2

JUNE 2023



PROJECT LOCATION

LOCATION MAP
NOT TO SCALE

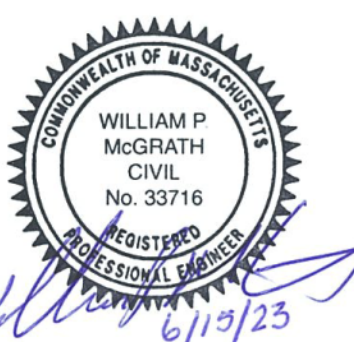
PLAN INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
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2-3	GENERAL NOTES, LEGEND & ABBREVIATION
4	TYPICAL SECTIONS
5-6	EXISTING CONDITIONS
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16-17	CURB TIE AND GRADING
18-19	SIGNING AND STRIPING
20	SIGN SUMMARY
21	PLANTING PLAN

PREPARED BY:



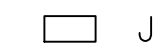
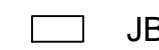

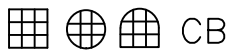











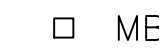
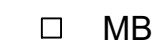
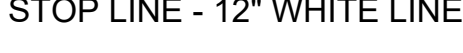

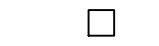

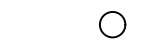




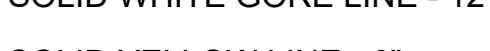
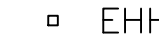


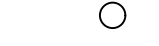



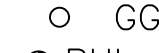
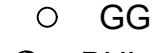

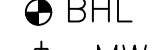
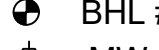

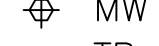
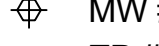




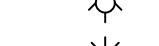
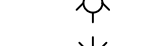

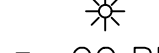





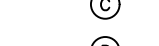
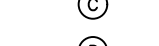
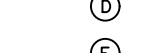
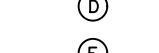

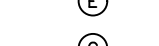
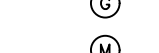

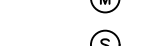
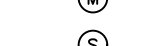
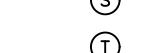
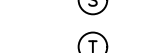
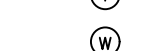
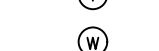




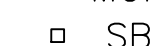







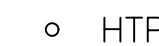

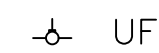



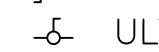

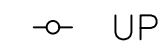









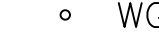
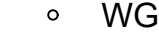
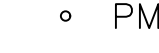
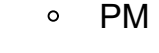
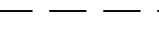
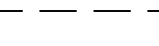
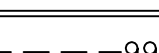
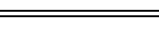
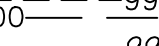
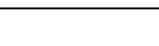
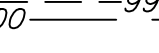
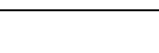
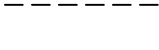
ISSUE DATE: APRIL 5, 2023



REGISTERED PROFESSIONAL

DATE

6/16/2023 9:32 AM I:\BETA-INC.COM\R\TRANS\107001\10788 - MAIN ST SIDEWALKS - PH 2 - ASHBURNHAM\DRAWING\FILES\PLANSET\10788_LEGEND.DWG (BETA STB BW STB)

GENERAL SYMBOLS				PAVEMENT MARKINGS SYMBOLS				ABBREVIATIONS				ABBREVIATIONS (cont.)			
EXISTING		PROPOSED		DESCRIPTION		GENERAL		GENERAL		GENERAL		GENERAL			
	JB		JB	JERSEY BARRIER			PAVEMENT ARROW - WHITE	AADT	ANNUAL AVERAGE DAILY TRAFFIC	PCC	POINT OF COMPOUND CURVATURE				
	CB		CB	CATCH BASIN			LEGEND "ONLY" - WHITE	ABAN	ABANDON	PCR	PEDESTRIAN CURB RAMP				
				CATCH BASIN CURB INLET			LEGEND "STOP" - WHITE	ADJ	ADJUST	P.G.L.	PROFILE GRADE LINE				
	FP		FP	FLAG POLE			LEGEND "AHEAD" - WHITE	APPROX.	APPROXIMATE	PI	POINT OF INTERSECTION				
	GP		GP	GAS PUMP			LEGEND "SIGNAL" - WHITE	A.C.	ASPHALT CONCRETE	POC	POINT ON CURVE				
	MB		MB	MAIL BOX			STOP LINE - 12" WHITE LINE	ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE	POT	POINT ON TANGENT				
				POST SQUARE			CROSSWALK - 12" WHITE LINES, 12" GAP	ALT	ALTERATION	PRC	POINT OF REVERSE CURVATURE				
				POST CIRCULAR			SOLID WHITE LINE - 6"	BIT.	BITUMINOUS	PROJ	PROJECT				
	WELL		WELL	WELL			SOLID WHITE GORE LINE - 12"	BC	BOTTOM OF CURB	PROP	PROPOSED				
	EHH		EHH	ELECTRIC HANDHOLE			SOLID YELLOW LINE - 6"	BD.	BOUND	PSB	PLANTABLE SOIL BORROW				
				FENCE GATE POST			BROKEN WHITE LINE - 6" AT 3' LINE AND 9' GAP	BL (or )	BASELINE	PT	POINT OF TANGENCY				
	GG		GG	GAS GATE			BROKEN YELLOW LINE - 6" AT 3' LINE AND 9' GAP	BLDG	BUILDING	PVC	POINT OF VERTICAL CURVATURE or				
	BHL #		BHL #	BORING HOLE			DOTTED WHITE LINE EXTENSION - 6" AT 2' LINE AND 6' GAP	BM	BENCHMARK		POLY-VINYL -CHLORIDE-PIPE				
	MW #		MW #	MONITORING WELL			DOTTED YELLOW LINE EXTENSION - 6" AT 2' LINE AND 6' GAP	BO	BY OTHERS	PVI	POINT OF VERTICAL INTERSECTION				
	TP #		TP #	TEST PIT			DOUBLE WHITE LINE - 2-6" LINES	BOS	BOTTOM OF SLOPE	PVT	POINT OF VERTICAL TANGENCY				
				HYDRANT			DOUBLE YELLOW LINE - 2-6" LINES	BOW	BOTTOM OF WALL	PVMT	PAVEMENT				
				LIGHT POLE				BR.	BRIDGE	PWW	PAVED WATER WAY				
	CO.BD.			COUNTY BOUND				BSW	BACK OF SIDEWALK	R	RADIUS OF CURVATURE				
				GPS POINT				CB	CATCH BASIN	R&D	REMOVE AND DISPOSE				
				CABLE MANHOLE				CBCI	CATCH BASIN WITH CURB INLET	RCP	REINFORCED CONCRETE PIPE				
				DRAINAGE MANHOLE				CC	CEMENT CONCRETE	RD	ROAD				
				ELECTRIC MANHOLE				CCM	CEMENT CONCRETE MASONRY	RDWY	ROADWAY				
				GAS MANHOLE				CEM	CEMENT	REM	REMOVE				
				MISC MANHOLE				CI	CURB INLET	RET	RETAIN				
				SEWER MANHOLE				CIP	CAST IRON PIPE	RET WALL	RETAINING WALL				
				TELEPHONE MANHOLE				CIT	CHANGE IN TYPE	ROW	RIGHT OF WAY				
				WATER MANHOLE				CLF	CHAIN LINK FENCE	RR	RAILROAD				
	MHB		MHB	MASSACHUSETTS HIGHWAY BOUND				CL	CENTERLINE	R&R	REMOVE AND RESET				
	MON			MONUMENT				CMP	CORRUGATED METAL PIPE	R&S	REMOVE AND STACK				
	SB			STONE BOUND				CPP	CORRUGATED PLASTIC PIPE	RT	RIGHT				
	TB			TOWN OR CITY BOUND				CSP	CORRUGATED STEEL PIPE	SB	STONE BOUND				
				TRAVERSE OR TRIANGULATION STATION				CO.	COUNTY	SD	SUBDRAIN				
	TPL or GUY		TPL or GUY	TROLLEY POLE OR GUY POLE				CONC	CONCRETE	SHLD	SHOULDER				
	HTP			TRANSMISSION POLE				COND	CONDUIT	SHT	SHEET				
	UFB		UFB	UTILITY POLE W/ FIREBOX				CONT	CONTINUOUS	SMH	SEWER MANHOLE				
	UPDL		UPDL	UTILITY POLE WITH DOUBLE LIGHT				CONST	CONSTRUCTION	SP	STRAIN POLE				
	ULT		ULT	UTILITY POLE W / 1 LIGHT				CR GR	CROWN GRADE	ST	STREET				
	UPL		UPL	UTILITY POLE				DI	DESIGN HOURLY VOLUME	STA	STATION				
				BUSH				DHV	DROP INLET	SSD	STOPPING SIGHT DISTANCE				
	24" PINE			TREE (SIZE AND TYPE AS NOTED)				DI	DIAMETER	SHLO	STATE HIGHWAY LAYOUT LINE				
				STUMP				DW	STEADY DON'T WALK - PORTLAND ORANGE	SW	SIDEWALK				
				SWAMP / MARSH				DWY	DRIVEWAY	T	TANGENT DISTANCE OF CURVE/TRUCK %				
	WG		WG	WATER GATE				ELEV (or EL.)	ELEVATION	TAN	TANGENT				
	PM		PM	PARKING METER				EMB	EMBANKMENT	TEMP	TEMPORARY				
				OVERHEAD CABLE/WIRE				EOP	EDGE OF PAVEMENT	TC	TOP OF CURB				
				CURBING				EXIST (or EX)	EXISTING	TOS	TOP OF SLOPE				
				CONTOURS (ON-THE-GROUND SURVEY DATA)				EXC	EXCAVATION	TOW	TOP OF WALL				
															

NOTES

GENERAL

1. ALL PERSONNEL WORKING THE JOB SITE ARE REQUIRED TO HAVE COMPLETED OSHA 10 HOUR TRAINING.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ABUTTING PROPERTIES AT ALL TIMES AND NOTIFY ALL ABUTTERS IN ADVANCE OF ANY INTERRUPTIONS TO ACCESS.
3. ALL AREAS OUTSIDE THE LIMITS OF THE PROPOSED WORK THAT HAVE BEEN DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER AND THE PROPERTY OWNER.
4. ALL WORK SHALL COMPLY WITH OSHA'S LATEST STANDARDS. ALL REQUIREMENTS OF OSHA'S SAFETY STANDARDS SHALL BE PROVIDED BY THE CONTRACTOR, INCLUDING BUT NOT LIMITED TO THE PROVISION FOR A COMPETENT PERSON TO SERVE AS ON-SITE SAFETY MANAGER.

PROPERTY LINE, TOPOGRAPHIC, AND WETLAND INFORMATION

1. SURVEY PLAN HAS BEEN PREPARED BY GOLDSMITH, PREST, AND RINGWALL, INC., DATED FEBRUARY 23, 2023.
2. THE COORDINATES, IN FEET, ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD 83). THE VERTICAL DATUM IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
3. THE PROPERTY LINE AND TOPOGRAPHIC INFORMATION ON THE EXISTING CONDITIONS PLAN WERE DEVELOPED BY FIELD INVESTIGATION AND MAY NOT INCLUDE ALL EXISTING SITE FEATURES. CONTRACTOR SHALL BY RESPONSIBLE FOR FIELD VERIFYING THE LOCATIONS OF ALL FEATURES.
4. CONTRACTOR SHALL PROTECT ALL EXISTING PROPERTY BOUNDS AND MONUMENTS TO THE EXTENT PRACTICABLE. IF ANY PROPERTY BOUNDS OR MONUMENTS ARE DISTRIBUTED OR DESTROYED DURING CONSTRUCTION, CONTRACTOR SHALL AT THEIR OWN EXPENSE RETAIN A REGISTERED LAND SURVEYOR TO RESTORE ANY SUCH DAMAGE.
5. RESOURCE AREA DELINEATION CONDUCTED BY BETA GROUP INC. ON JANUARY 17, 2023
6. ACCORDING TO FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 2502910004B, THE BASE FLOOD ELEVATION OF PHILLIPS BROOK IN THE VICINITY OF THE PROJECT IS 991 FEET (NGVD29) COVERTED TO 990.31 FEET (NAVD88).

SITE PREPARATION AND EROSION CONTROL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT SURVEYS.
2. PROPOSED BOUNDS, AND BOUNDS REMOVED AND RESET SHALL BE SET FLUSH WITH THE ADJACENT WALK SURFACE.
3. CONTRACTOR MUST PROVIDE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), INCLUDING THE FILING OF A NOTICE OF INTENT WITH THE U.S. EPA TO OBTAIN A NPDES CONSTRUCTION GENERAL PERMIT (CGP) PRIOR TO THE CONTRACTOR COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM INSPECTIONS, MONITORING, AND MAINTENANCE, IF WARRANTED, IN ACCORDANCE WITH THE SWPPP TO COMPLY WITH THE CGP. THE SOIL EROSION SEDIMENT CONTROL PROCEDURES AND DETAILS SHOWN AND DESCRIBED IN THE SWPPP SHALL BE STRICTLY FOLLOWED AND INSTALLED IN A MANNER TO MINIMIZE EROSION FROM DISTURBED AREAS.
4. THE CONTRACTOR SHALL NOTIFY DIG SAFE 72 HOURS PRIOR TO COMMENCING WORK, AS WELL AS OWNERS OF UTILITIES NOT INCLUDED WITHIN DIGSAFE.
5. THE CONTRACTOR SHALL VERIFY EXISTING GRADES AND SITE CONDITIONS. IF ANY ADJUSTMENT IS REQUIRED DUE TO DIFFERENT EXISTING GRADES FOUND IN THE FIELD. THE CONTRACTOR SHALL NOTIFY ENGINEER AND OBTAIN THE APPROVAL PRIOR TO PERFORMING THE WORK. PARTICULAR ATTENTION SHALL BE PAID TO EXISTING SUBSURFACE AND ABOVE-GROUND UTILITIES
6. ALL EXCAVATIONS EXPOSED TO VEHICLE TRAFFIC IN THE STREET, DRIVEWAYS, PARKING LOTS, AND SIDEWALKS SHALL BE PROPERLY COVERED, SECURED AND PINNED.
7. WHEN WORKING NEXT TO EXISTING TREES, WALLS, FENCES, AND OTHER FEATURES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO DISTURB THESE OBJECTS. IF THE CONTRACTOR DOES DAMAGE ANY OF THESE OBJECTS AS A RESULT OF THE CONSTRUCTION PROCESS, IT SHALL BE THEIR RESPONSIBILITY (THE CONTRACTOR) TO REPAIR ALL DAMAGES AS DIRECTED BY THE ENGINEER. ALL WORK ASSOCIATED WITH THE REPAIR OR REPLACEMENT OF EXISTING TREES, WALLS OR FENCES SHALL BE CONSIDERED AS INCLUDED IN THE BID PRICE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
8. THE CONTRACTOR'S ACCESS, STAGING, AND STORAGE AREAS SHALL BE LOCATED WITHIN THE DESIGNATED LIMITS OF THE WORK AREA. NO WORK, STOCKPILING OF MATERIALS, STORAGE OF EQUIPMENT, OR OTHER OPERATIONS OF THE CONTRACTOR SHALL TAKE PLACE OUTSIDE THE LIMITS OF WORK UNLESS AUTHORIZED IN WRITING BY THE ENGINEER.
9. EROSION CONTROL DEVICES SHALL BE FULLY INSTALLED PRIOR TO THE START OF CONSTRUCTION, AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THESE DEVICES SHALL BE REMOVED UPON COMPLETION OF ALL WORK WHEN ALL DISTURBED AREAS ARE STABILIZED, TO THE SATISFACTION OF THE ENGINEER AND THE TOWN.
10. SILT SACKS SHALL BE INSTALLED WITHIN CATCH BASINS AND DRAIN INLETS WITHIN THE LIMITS OF WORK AND ALL AREAS IMMEDIATELY DOWNGRAIENT OF THE WORK, AND AS DIRECTED BY THE ENGINEER, AS NECESSARY TO PREVENT SILT-LADEN RUNOFF FROM ENTERING THE TOWN STORM DRAIN SYSTEM.
11. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING DOWNSTREAM CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD AND CLEARING ANY DEBRIS AND/OR SEDIMENT IMPEDING PROPER DRAINAGE DURING CONSTRUCTION.
12. NO SEDIMENT SHALL BE PERMITTED TO LEAVE THE SITE DURING CONSTRUCTION. IF HEAVY RAIN AND/OR UNUSUAL SITE CONDITIONS RESULT IN THE POLLUTION OF ROADWAYS, BUFFER ZONES, RESOURCE AREAS, OR ADJACENT PARCELS, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. CONTRACTOR SHALL CLEAN ANY DISTURBED AREAS AS SOON AS PRACTICABLE AND RESTORE THEIR ORIGINAL CONDITIONS. CLEANING AND RESTORATION WITHIN BUFFER ZONES AND RESOURCE AREAS MUST BE PERFORMED UNDER THE SUPERVISION OF A WETLAND CONSULTANT, AS COORDINATED BY ENGINEER. WORK MAY ALSO BE OBSERVED BY THE TOWN
13. THE CONTRACTOR SHALL MONITOR ALL AREAS WITHIN THE LIMIT OF THE WORK FOR SIGNS OF EROSION, AND REPAIR/STABILIZE ANY ERODED AREAS, AS REQUIRED, UNTIL FINAL STABILIZATION CAN BE ACHIEVED.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND LEGAL DISPOSAL OF ALL EROSION CONTROL MEASURES AFTER THE SITE IS STABILIZED, UPON APPROVAL BY THE ENGINEER AND OWNER.
15. CONTRACTOR SHALL SWEEP ALL PAVED AREAS WITHIN THE LIMITS OF WORK AT THE END OF EACH WORK DAY (OR MORE FREQUENTLY AS REQUESTED BY THE TOWN OR ITS AGENT) TO REMOVE SEDIMENT TRACKING CAUSED BY PROJECT-RELATED CONSTRUCTION VEHICLES.
16. ALL DISTURBED AREAS SHALL BE STABILIZED NO LATER THAN 14 DAYS AFTER A CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED N THAT PORTION OF THE SITE.
17. ALL STOCKPILES AND DISTURBED AREAS TO BE STABILIZED IF EXPOSED FOR MORE THAN 30 DAYS. ALL STOCKPILES SHALL BE SURROUNDED BY STRAW WATTLES AND SILT FENCE, AND COVERED IN A MANNER THAT STORMWATER DOES NOT INFILTRATE THE MATERIAL.

CONSTRUCTION

1. TOPSOIL SHALL BE STRIPPED WITHIN THE LIMITS OF THE PROPOSED SIDEWALKS/LANDSCAPING AREAS, STOCKPILED ON SITE, AND SCREENED FOR RE-USE.
2. SAMPLES AND GRAIN SIZE DISTRIBUTION ANALYSES FOR PROPOSED MATERIALS SHALL BE PROVIDED TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO USE.
3. A MINIMUM OF 12 INCHES OF SOIL COVER SHALL BE PROVIDED FOR ALL DISTURBED AREAS WHERE BEDROCK IS ENCOUNTERED.
4. FOLLOWING COMPLETION OF WORK, ANY AND ALL DAMAGE TO TOWN WAYS CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED UNDER THE DIRECTION OF THE TOWN.
5. UNLESS OTHERWISE NOTED, ALL EXISTING WALLS WITHIN THE PROJECT LIMITS SHALL BE RETAINED.
6. MAILBOXES, FENCES, SIGNS, ETC., THAT NEED TO BE RELOCATED SHALL BE REMOVED AND RESET (R&R) IN THEIR NEW LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE OWNER SHALL BE CONSULTED PRIOR TO THE WORK. ALL FENCES AND HEDGES SHALL BE RETAINED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
7. SURPLUS MATERIALS OBTAINED FROM ANY TYPE OF EXCAVATION, AND ALL EXISTING AND OTHER MATERIALS NOT REQUIRED TO BE REMOVED AND STACKED OR NEEDED FOR USE ON THE PROJECT, AS DETERMINED BY THE ENGINEER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF SUBJECT TO THE REGULATIONS AND REQUIREMENTS OF LOCAL AUTHORITIES GOVERNING THE DISPOSAL OF SUCH MATERIALS. AT NO ADDITIONAL COMPENSATION
8. TRAFFIC CONTROL MEASURES INCLUDING BUT NOT LIMITED TO, CONES, SIGNS AND BARRICADES AS REQUIRED TO COMPLETE THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE GENERAL WORK OF THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE MADE.
9. ACCESS FOR ABUTTERS SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL ERECT TEMPORARY CONTROLS SUCH AS CONES, DRUMS, SIGNAGE, FENCING, AND BARRICADES, TO THE SATISFACTION OF THE ENGINEER, TO CLOSE OFF THE CONSTRUCTION AREA FROM ADJACENT SIDEWALKS AND PUBLIC WAYS WHOSE USE CONFLICTS WITH THE CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REPLACE AND/OR RESTORE CONTROLS THAT ARE DAMAGED DUE TO THE CONSTRUCTION, AND/OR ACCIDENTS, VANDALISM OR IN ANY OTHER MANNER FOR THE DURATION OF THE PROJECT. ALL WORK TO FURNISH, INSTALL, RELOCATE AND REMOVE THE CONTROLS SHALL BE CONSIDERED INCIDENTAL TO AND NO SEPARATE PAYMENT WILL BE MADE.

SIDEWALK AND DRIVEWAY

1. CONTRACTOR SHALL VERIFY LOCATION OF ALL OBJECTS (SIGNS, TREES, GRATE, POLES ETC.) TO BE SET/ADJUSTED WITHIN SIDEWALK PRIOR TO FINAL PLACEMENT TO PROVIDE A MINIMUM CLEAR PATH OF 36" EXCLUDING THE CURB. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY LOCATION WHICH CANNOT MEET THE CLEARANCE REQUIREMENTS.
2. IN ALL LOCATIONS WHERE PROPOSED SIDEWALK TRANSITIONS DOWN TO MEET EXISTING GRADE, EXISTING SIDEWALK, OR PAVED AREA, THE SLOPE SHALL NOT EXCEED 1:12 AND SHALL BE ADA COMPLIANT.
3. SIGNS, POLES, AND OTHER FEATURES LOCATED IN PROPOSED SIDEWALK SHALL BE BOXED AND PROVIDED FLEXIBLE JOINT FILLER.
4. SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS SHALL BE IN ACCORDANCE WITH MASSDOT REQUIREMENTS AND THE LATEST VERSION OF THE MUTCD.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A ROAD OPENING PERMIT FOR WORK WITHIN STREETS.
6. JOINTS BETWEEN EXISTING HOT MIX ASPHALT (HMA) ROADWAY PAVEMENT AND SAW-CUT TO REMOVE AND INSTALL CURB SHALL BE SEALED WITH BITUMEN AND BACKSANDED.

UTILITIES

1. THE ACCURACY AND COMPLETENESS OF ALL UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN ON THE PLANS IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, DEPTH, ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. ALL PRIVATELY-OWNED UTILITY STRUCTURES, WITHIN AREAS AFFECTED BY THE WORK, SHALL BE ADJUSTED OR REMODELD TO NEW LINE AND GRADE AS DIRECTED BY THE ENGINEER. ANY UTILITY AND GUY POLES, WITHIN AREAS AFFECTED BY THE WORK, SHALL BE REMOVED AND RESET BY THE RESPECTIVE UTILITY COMPANY. ALTERATIONS TO UTILITIES AND UTILITY STRUCTURES NOT PRIVATELY OWNED SHALL BE MADE BY THE RESPECTIVE UTILITY OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WORK IN ADVANCE WITH THOSE UTILITY OWNERS.
2. DRAINAGE STRUCTURES AND PIPES ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY, BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONTRACTIBILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED.
3. TEST PITS SHALL BE EXCAVATED SUFFICIENTLY IN ADVANCE OF CONSTRUCTION NEAR PROPOSED DRAINAGE STRUCTURES TO DETERMINE THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES.
4. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR THE RESOLUTION OF THE CONFLICT.
5. ALL EXISTING UTILITIES SHALL BE RETAINED UNLESS OTHERWISE NOTED ON THE PLANS.
6. WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS, DRAIN PIPES, OR OTHER OBJECTS FOR CONTRACTOR'S CONVENIENCE TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE ITEMS TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER. ANY EXISTING PIPE OR UTILITY DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER.
7. DRAINAGE STRUCTURE FRAMES AND GRATES/COVERS SHALL CLEARLY ALIGN WITH THE OPENINGS IN THE PRECAST STRUCTURES AND THE GRADE OF THE ROADWAY.

LANDSCAPE AND PLANTING

1. AREAS TO BE LOAMED AND SEEDED AS DEPICTED ON THE DRAWINGS SHALL RECEIVE A MINIMUM OF 4 INCHES OF LOAM BORROW, PROCESSED PLANTING MATERIAL, OR TOPSOIL. MATERIALS SHALL MEET THE REQUIREMENTS SPECIFIED IN THE FOLLOWING SUBSECTION OF DIVISION III, MATERIALS:

• LOAM BORROW

M1.05.0

• LIMESTONE

M6.01.0

• FERTILIZER

M6.02.0

• GRASS SEED

M6.03.0

• CROWN VETCH SEED

M6.03.2
2. EXISTING VEGETATION SHALL BE PRESERVED TO EXTENT POSSIBLE UNLESS NECESSARY FOR CONSTRUCTION OR OTHERWISE DEPICTED ON THE PLANS.
3. ALL TREES AND SHRUBS WITHIN THE LIMITS OF WORK SHALL BE RETAINED AND PROTECTED UNLESS OTHERWISE NOTED ON THE PLANS.
4. NO PESTICIDES OR HERBICIDES SHALL BE USED WITHIN 200 FEET OF ANY AREA DEFINED BY 333 CMR 11.00 AND 14.00. THESE AREAS INCLUDE, BUT ARE NOT LIMITED TO, ROADWAYS, AGRICULTURAL AREAS, SENSITIVE AREAS, WETLANDS, AND VERNAL POOLS.

DRAWN BY:

JMC

DESIGNED BY:

BB

CHECKED BY:

WPM

REGISTERED PROFESSIONAL

COMMONWEALTH OF MASSACHUSETTS

WILLIAM P. McGRATH

CIVIL

No: 93716

REGISTERED

Professional Seal

6/15/23

PREPARED BY

BETA

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TITLE

MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2

GENERAL NOTES

ASHBURNHAM, MA

BETA JOB NO.

10788

ISSUE DATE

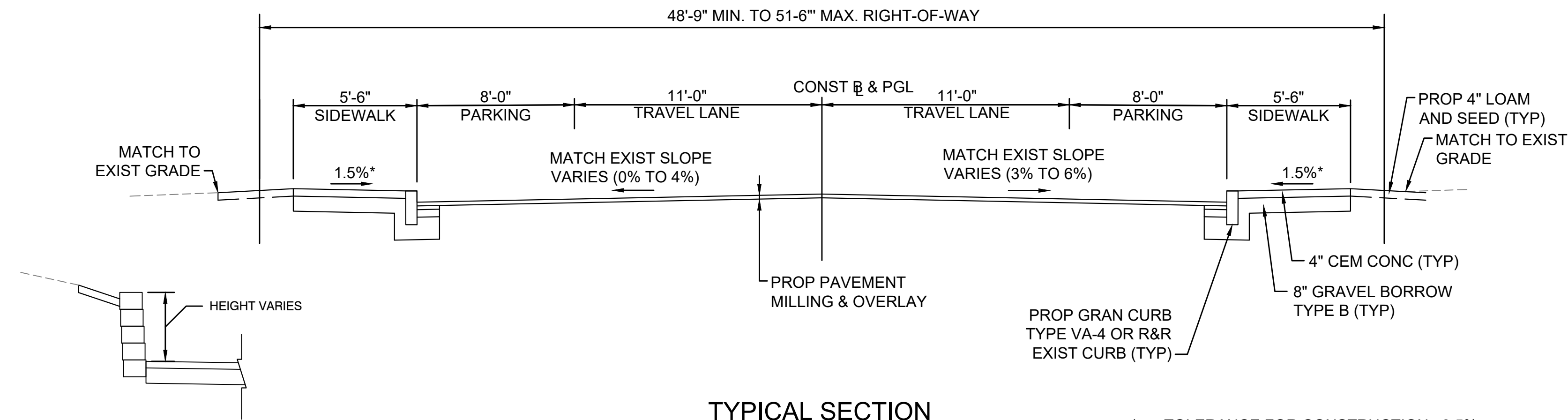
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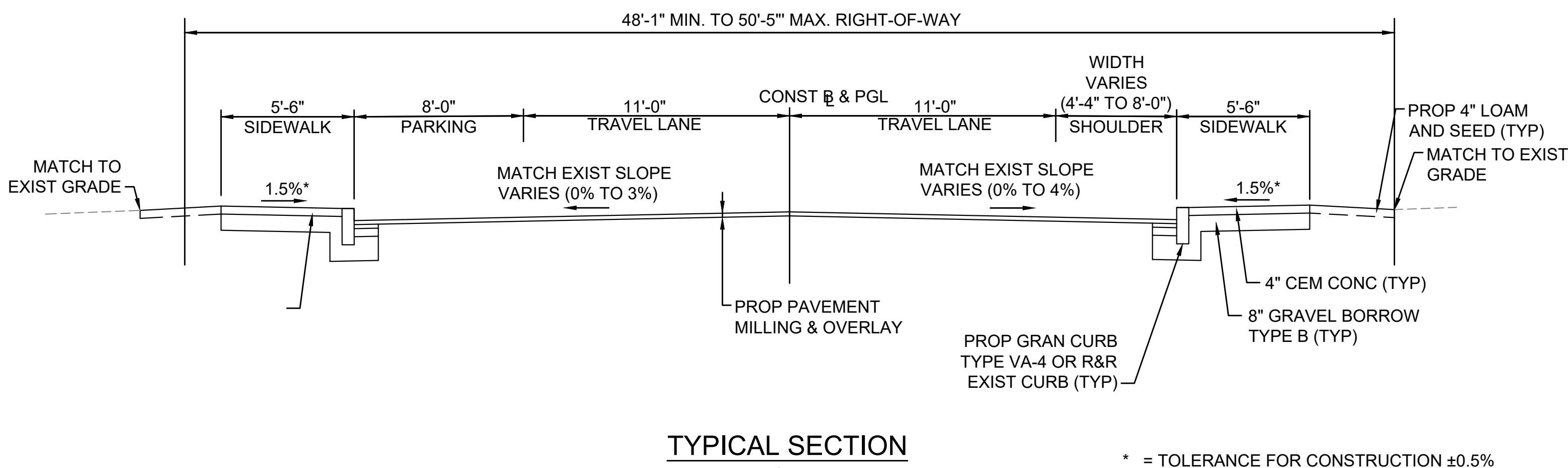
3 OF 21

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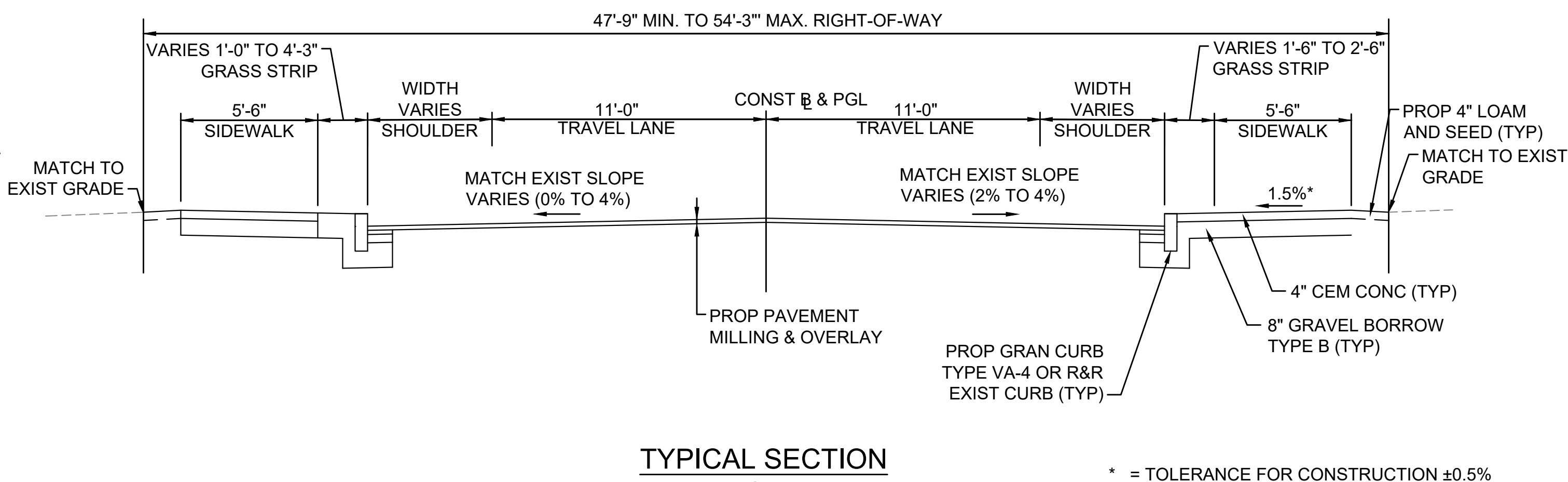
WALL TYPICAL SECTION
STA. 11+93± TO 13+11±



TYPICAL SECTION
MAIN STREET
STA 10+13± TO STA 14+20±



TYPICAL SECTION
MAIN STREET
STA 14+20± TO STA 17+35±



TYPICAL SECTION
MAIN STREET
STA 17+35± TO STA 21+34±

PAVEMENT NOTES

FULL DEPTH PAVEMENT

SURFACE COURSE: 1-1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVER
INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER ASPHALT EMULSION FOR TACK COAT OVER
BASE COURSE: 4" SUPERPAVE BASE COURSE 37.5 (SBC-37.5) OVER
SUB-BASE:** 12" GRAVEL BORROW, TYPE b (STABILIZED WITH EMULSIFIED LIQUID ASPHALT)

FULL DEPTH PAVEMENT BOX WIDENING ≤4' WIDE

SURFACE COURSE: 1-1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVER
INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER ASPHALT EMULSION FOR TACK COAT OVER
BASE COURSE: 6" HES CEMENT CONCRETE BASE COURSE OVER
SUB-BASE:** 8" GRAVEL BORROW, TYPE b

PAVEMENT MILLING AND OVERLAY

SURFACE COURSE: 1-1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
PAVEMENT MILLING: 1-1/2" PAVEMENT MICROMILLING

CEMENT CONCRETE SIDEWALKS, STAMPED AND COLORED, AND WHEELCHAIR RAMPS

SURFACE: 4" CEMENT CONCRETE WALK SURFACE 4000 PSI, 3/4", 610 OVER
BASE COURSE:** 8" GRAVEL BORROW, TYPE b

HMA SIDEWALKS

SURFACE: 1-1/4" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER 1-3/4" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER
BASE COURSE:** 8" GRAVEL BORROW, TYPE b OR 8" RECLAIM BASE

HMA DRIVEWAYS

SURFACE: 1-1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER 2-1/2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER
BASE COURSE:** 8" GRAVEL BORROW, TYPE b

PAVEMENT NOTES

- ALL HMA FOR PATCHING, ASPHALT EMULSION FOR TACK COAT AND HMA JOINT SEALANT SHALL BE INSTALLED PER SECTION 450.
- TACK COAT SHALL BE APPLIED FOR UNIFORM COVERAGE OF 90% AT RATE OF 0.07 GALLONS PER SQUARE YARD FOR MILLED SURFACES AND 0.05 GALLONS PER SQUARE YARD FOR MILLED SURFACES AND 0.05 GALLONS PER SQUARE YARD FOR SMOOTH TIGHT PAVED SURFACES.

						DRAWN BY: JMC	REGISTERED PROFESSIONAL WILLIAM P. McGRATH CIVIL No. 93716 EXPIRES 6/15/23	PREPARED BY BETA www.BETA-Inc.com	SUBCONSULTANT	SCALE AS SHOWN UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION	TITLE MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2 TYPICAL SECTIONS NO. 1 ASHBURNHAM, MA	BETA JOB NO. 10788 ISSUE DATE 06/15/2023 SHEET NO. 4 OF 21
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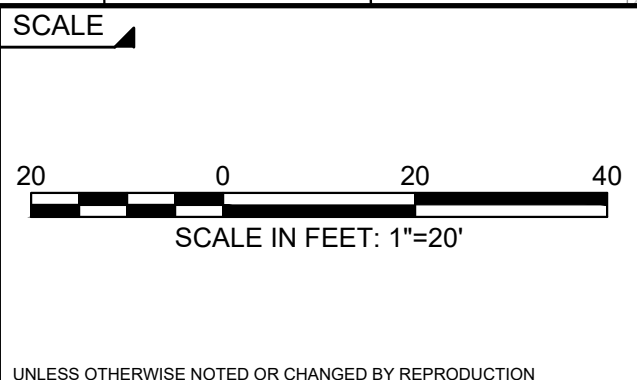


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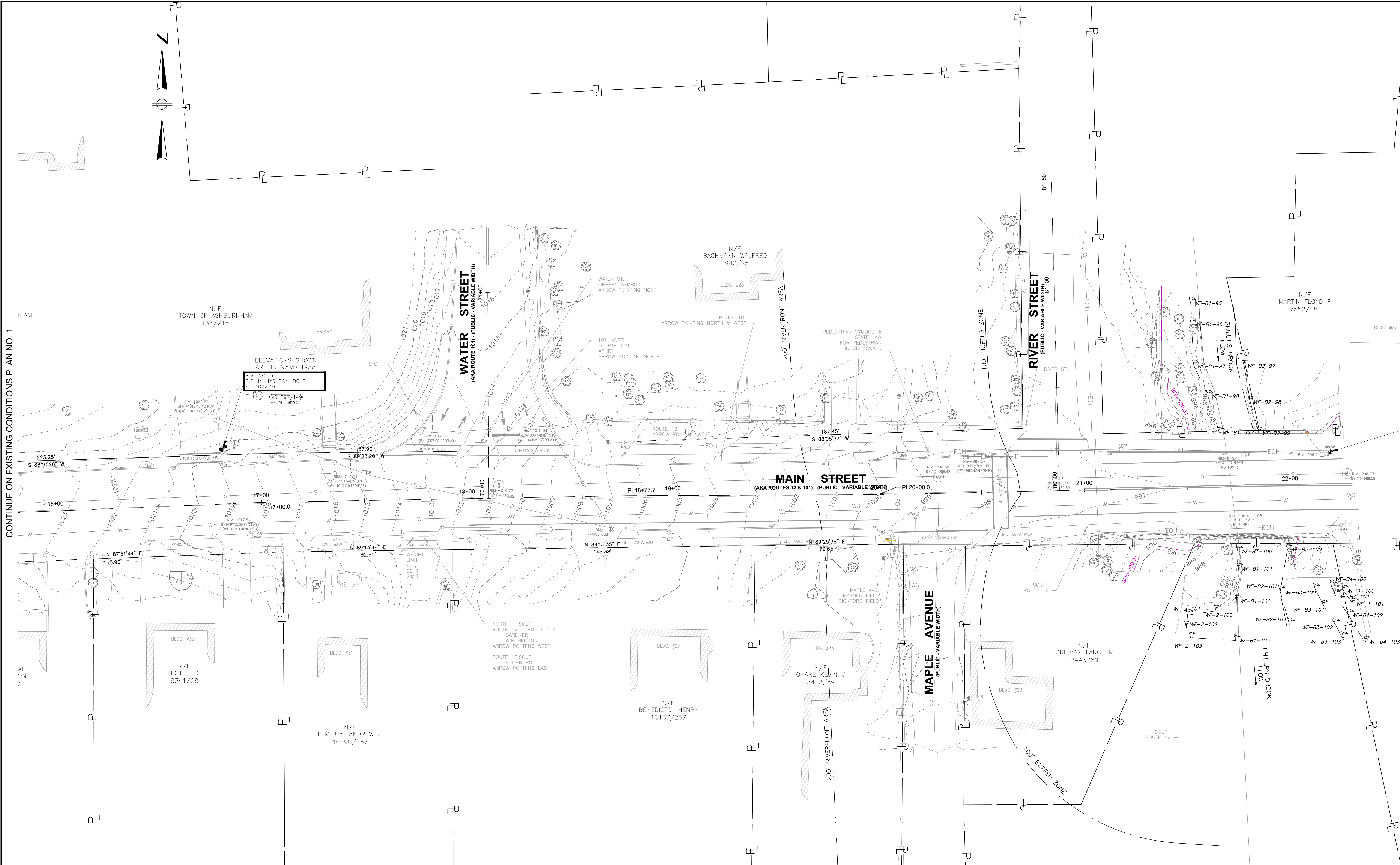
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EXISTING CONDITIONS PLAN NO. 1
ASHBURNHAM, MA

BETA JOB NO.	10788
ISSUE DATE	06/15/2023
SHEET NO.	5 OF 21

CONTINUE ON EXISTING CONDITIONS PLAN NO. 2

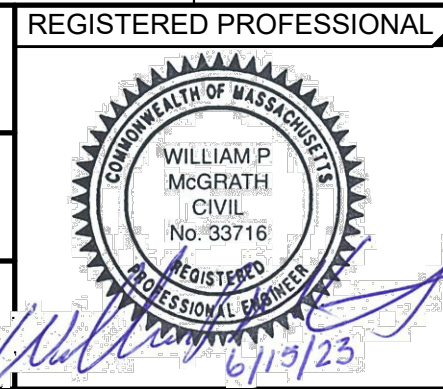
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CONTINUE ON EXISTING CONDITIONS PLAN NO. 1

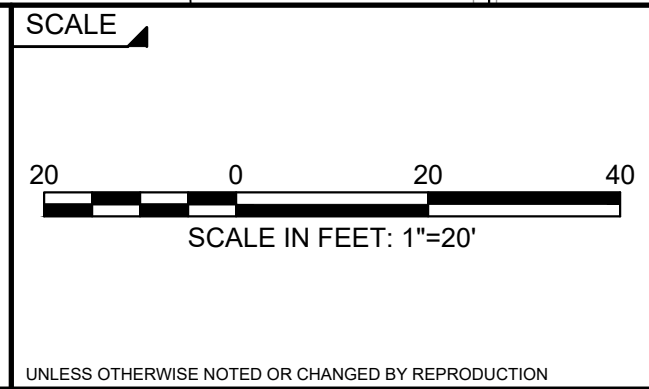


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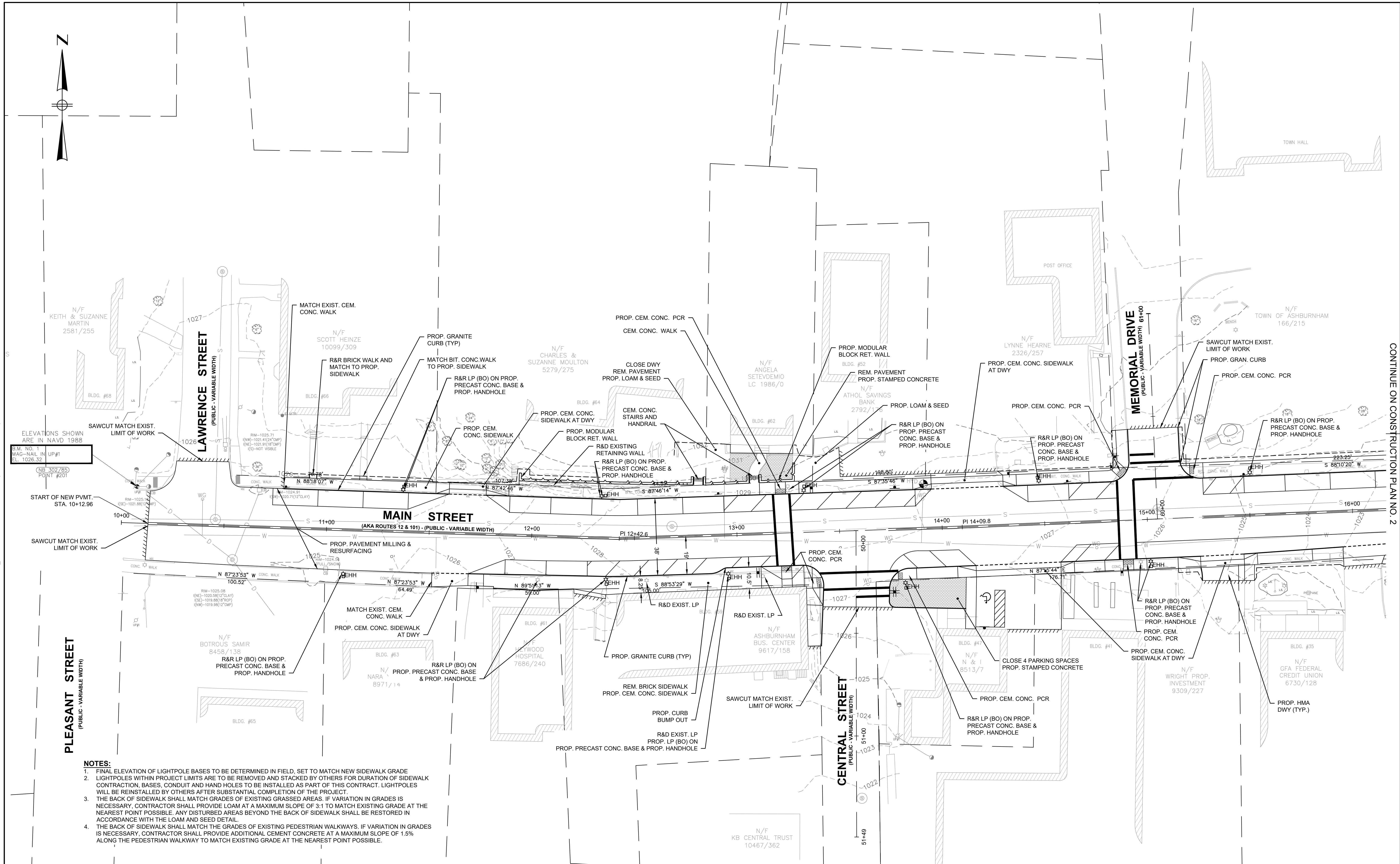


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TITLE	MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2 EXISTING CONDITIONS PLAN NO. 2 ASHBURNHAM, MA
BETA JOB NO.	10788
ISSUE DATE	06/15/2023
SHEET NO.	6 OF 21

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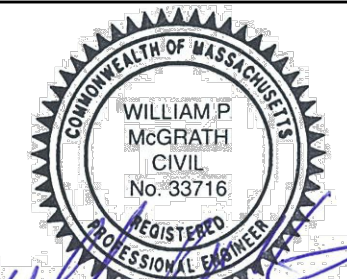



CONTINUE ON CONSTRUCTION PLAN NO. 2

NOTES:


1. FINAL ELEVATION OF LIGHTPOLE BASES TO BE DETERMINED IN FIELD, SET TO MATCH NEW SIDEWALK GRADE
2. LIGHTPOLES WITHIN PROJECT LIMITS ARE TO BE REMOVED AND STACKED BY OTHERS FOR DURATION OF SIDEWALK CONTRACTION, BASES, CONDUIT AND HAND HOLES TO BE INSTALLED AS PART OF THIS CONTRACT. LIGHTPOLES WILL BE REINSTALLED BY OTHERS AFTER SUBSTANTIAL COMPLETION OF THE PROJECT.
3. THE BACK OF SIDEWALK SHALL MATCH GRADES OF EXISTING GRASSED AREAS. IF VARIATION IN GRADES IS NECESSARY, CONTRACTOR SHALL PROVIDE LOAM AT A MAXIMUM SLOPE OF 3:1 TO MATCH EXISTING GRADE AT THE NEAREST POINT POSSIBLE. ANY DISTURBED AREAS BEYOND THE BACK OF SIDEWALK SHALL BE RESTORED IN ACCORDANCE WITH THE LOAM AND SEED DETAIL.
4. THE BACK OF SIDEWALK SHALL MATCH THE GRADES OF EXISTING PEDESTRIAN WALKWAYS. IF VARIATION IN GRADES IS NECESSARY, CONTRACTOR SHALL PROVIDE ADDITIONAL CEMENT CONCRETE AT A MAXIMUM SLOPE OF 1.5% ALONG THE PEDESTRIAN WALKWAY TO MATCH EXISTING GRADE AT THE NEAREST POINT POSSIBLE.

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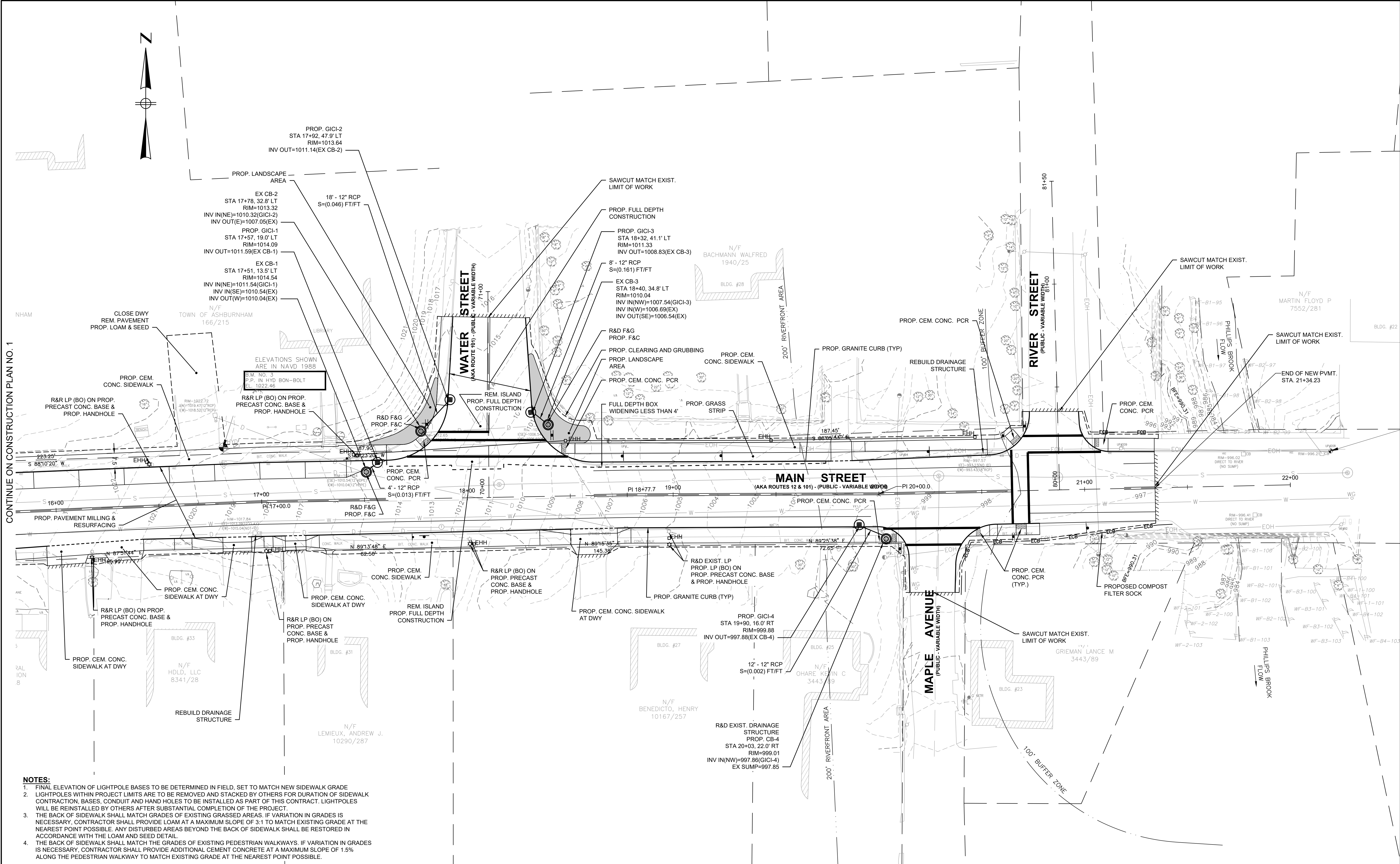
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TITLE MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2 CONSTRUCTION PLAN NO. 1 ASHBURNHAM, MA

BETA JOB NO. 10788
ISSUE DATE 06/15/2023
SHEET NO. 7 OF 21



NOTES:

1. FINAL ELEVATION OF LIGHTPOLE BASES TO BE DETERMINED IN FIELD, SET TO MATCH NEW SIDEWALK GRADE
2. LIGHTPOLES WITHIN PROJECT LIMITS ARE TO BE REMOVED AND STACKED BY OTHERS FOR DURATION OF SIDEWALK CONSTRUCTION, BASES, CONDUIT AND HAND HOLES TO BE INSTALLED AS PART OF THIS CONTRACT. LIGHTPOLES WILL BE REINSTALLED BY OTHERS AFTER SUBSTANTIAL COMPLETION OF THE PROJECT.
3. THE BACK OF SIDEWALK SHALL MATCH GRADES OF EXISTING GRASSED AREAS. IF VARIATION IN GRADES IS NECESSARY, CONTRACTOR SHALL PROVIDE LOAM AT A MAXIMUM SLOPE OF 3:1 TO MATCH EXISTING GRADE AT THE NEAREST POINT POSSIBLE. ANY DISTURBED AREAS BEYOND THE BACK OF SIDEWALK SHALL BE RESTORED IN ACCORDANCE WITH THE LOAM AND SEED DETAIL.
4. THE BACK OF SIDEWALK SHALL MATCH THE GRADES OF EXISTING PEDESTRIAN WALKWAYS. IF VARIATION IN GRADES IS NECESSARY, CONTRACTOR SHALL PROVIDE ADDITIONAL CEMENT CONCRETE AT A MAXIMUM SLOPE OF 1.5% ALONG THE PEDESTRIAN WALKWAY TO MATCH EXISTING GRADE AT THE NEAREST POINT POSSIBLE.

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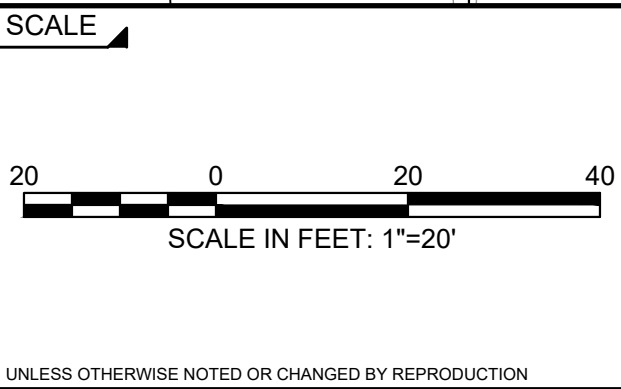
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TITLE

MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2

CONSTRUCTION PLAN NO. 2

ASHBURNHAM, MA

BETA JOB NO. 10788

ISSUE DATE 06/15/2023

SHEET NO. 8 OF 21

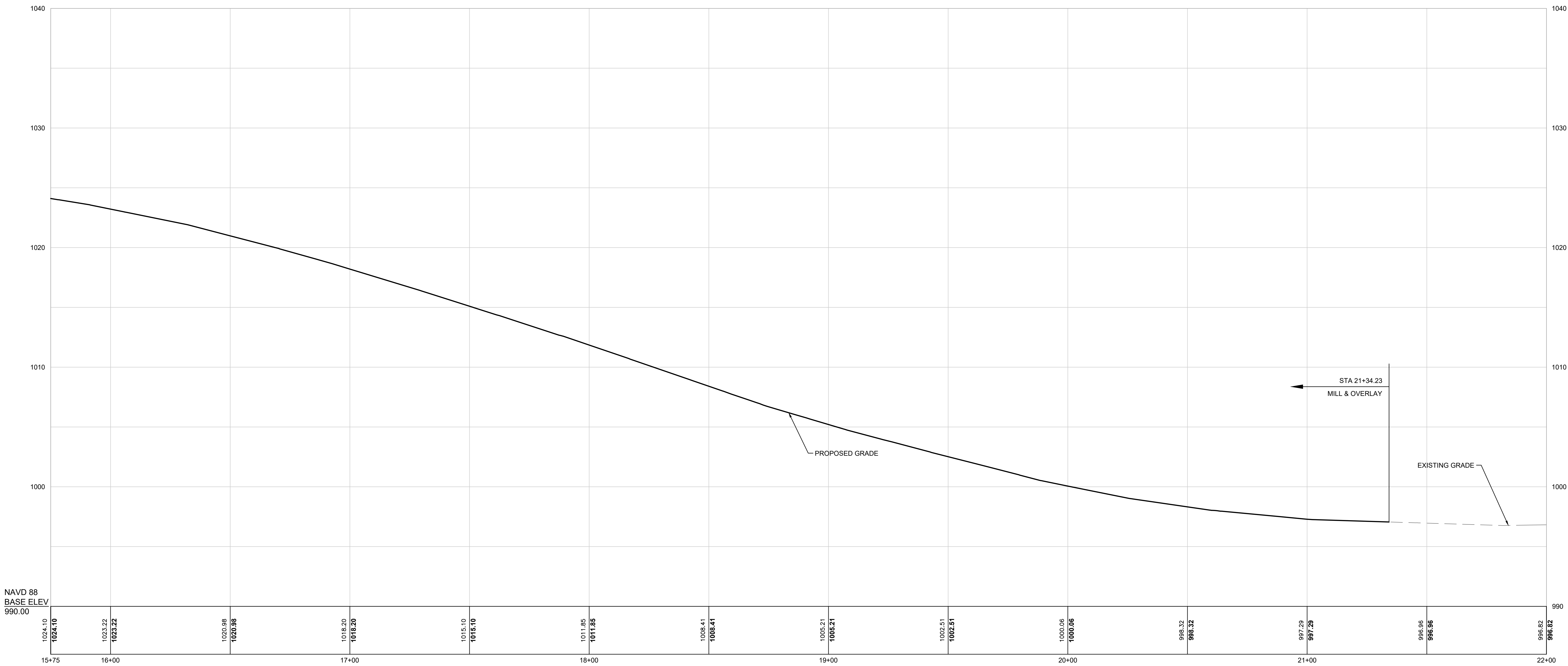
The profile view graph displays the existing and proposed grades for a road project. The horizontal axis represents stationing from 10+00 to 16+00. The vertical axis represents elevation in feet, ranging from 1010 to 1040. The existing grade is shown as a solid black line, and the proposed grade is shown as a solid purple line. The proposed grade includes a 12% vertical curve starting at station 10+12.96. The graph also includes a table of elevation data at the bottom.

Station	Existing Grade (ft)	Proposed Grade (ft)
10+00	1025.60	1025.60
11+00	1025.77	1025.77
12+00	1026.32	1026.32
13+00	1027.43	1027.43
14+00	1028.54	1028.54
15+00	1028.91	1028.91
16+00	1028.45	1028.45
17+00	1027.87	1027.87
18+00	1027.17	1027.17
19+00	1026.23	1026.23
20+00	1024.92	1024.92
21+00	1023.22	1023.22

PROFILE

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MAIN STREET CL
STA (15+75 TO 22+00)



NAVD 88
BASE ELEV
990.00

PROFILE

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TITLE

MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2

CONSTRUCTION PROFILE NO. 2

ASHBURNHAM, MA

BETA JOB NO. 10788

ISSUE DATE 06/15/2023

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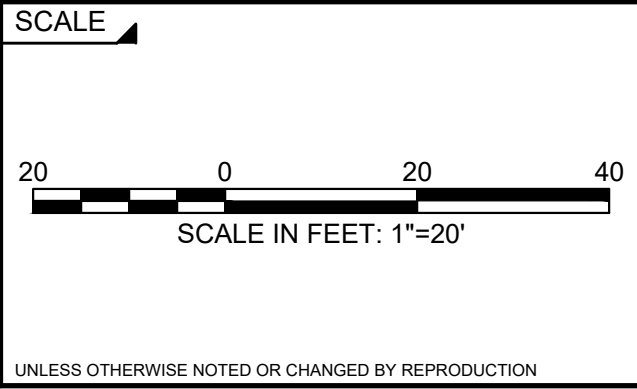


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	 <p style="text-align: center; margin-top: 10px;">SCALE IN FEET: 1"=20'</p>
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TITLE
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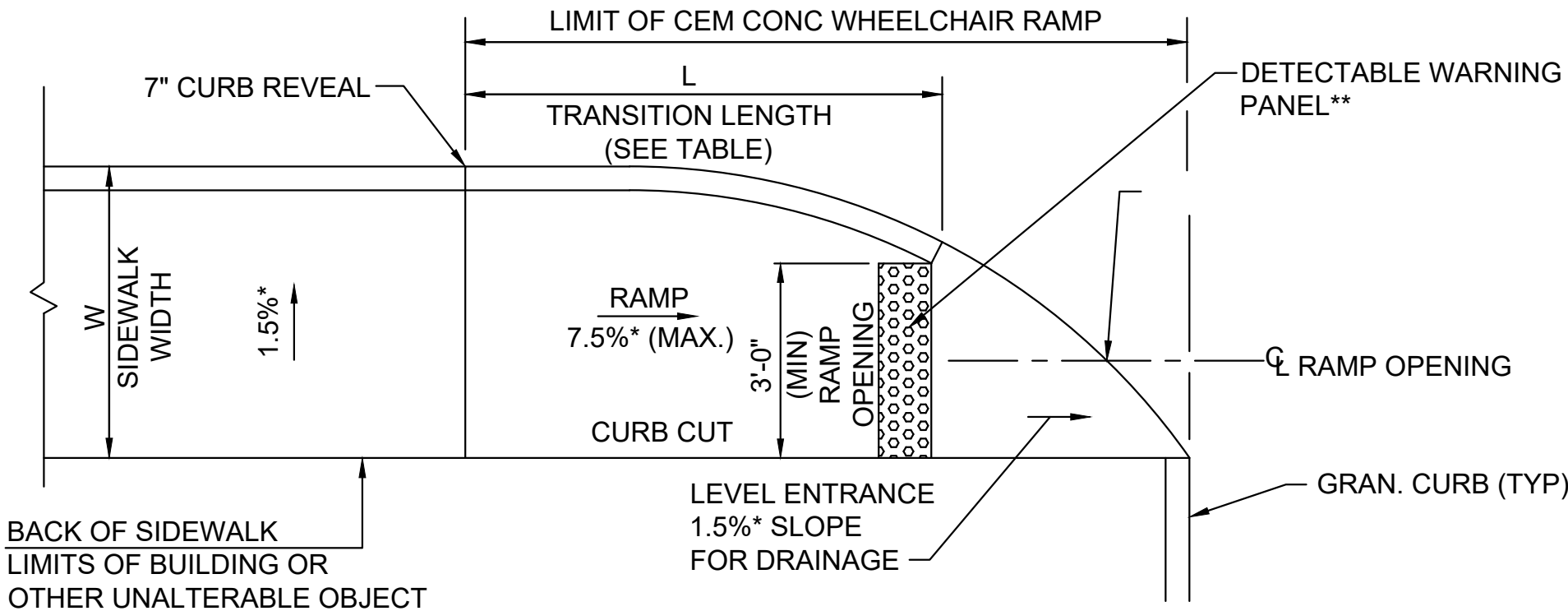
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ISSUE DATE 06/15/2023

SHEET NO. 11 OF 21

6/16/2023 9:33 AM I:\BETA\INC.COM\RITRANS\107001\0788 - MAIN ST SIDEWALKS - PH 2 - ASHBURNHAM\DRAWINGFILES\PLANSET\10788_CONSTRUCTION DETAILS.DWG (BETA STB BW.STB)

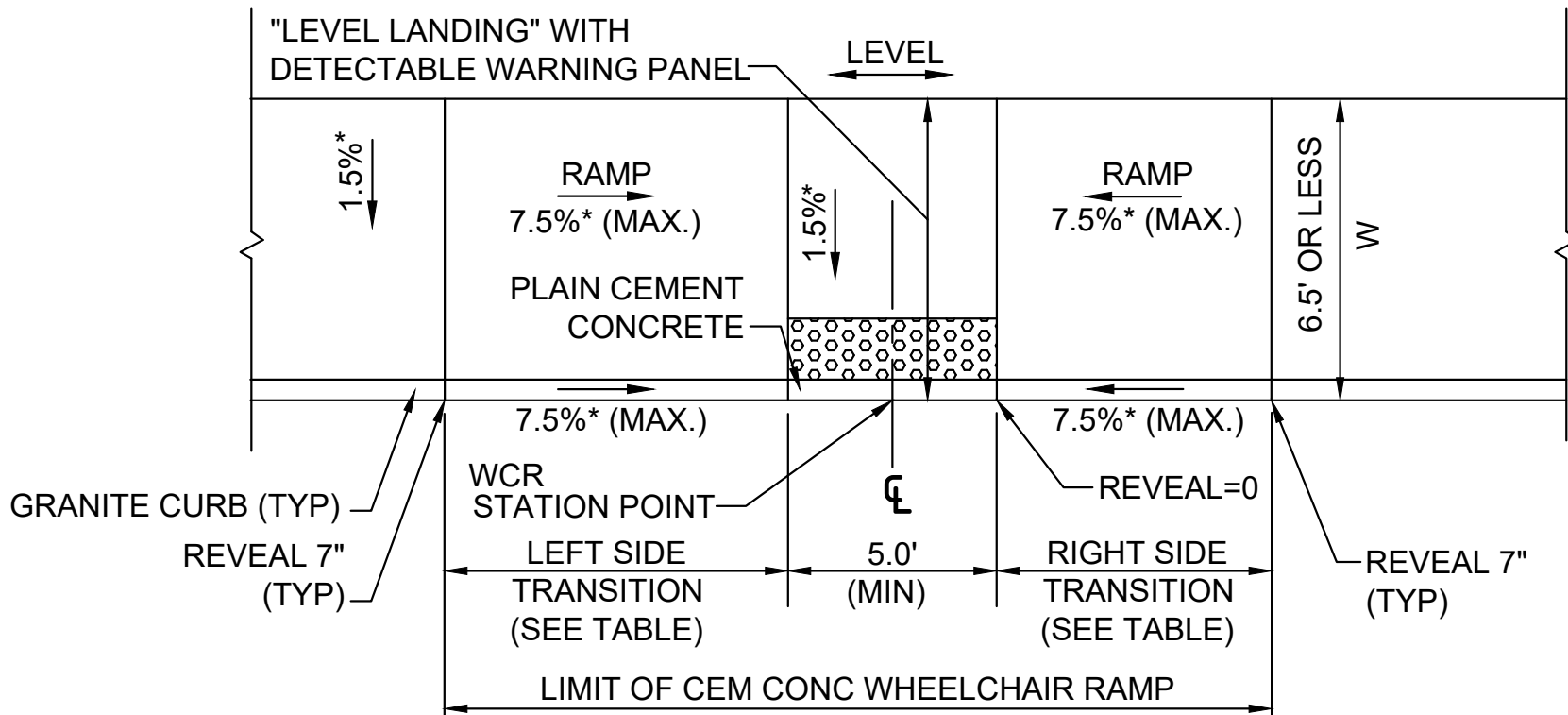
PEDESTRIAN RAMP DETAIL FOR ONE DIRECTION OF TRAVEL								
WCR #	LOCATION	RAMP REFERENCE POINT		LENGTH OF PRIMARY RAMP (FT)	WIDTH OF SIDEWALK (FT)	WIDTH OF OPENING (MIN 3'-3")	ROADWAY GUTTER SLOPE (%)	NOTES
		STATION	OFFSET					
4	MAIN ST	13+76.8	21.75 R	6.5	5.0	3.0	-0.5 ±	
7	MAIN ST	15+19.3	22.50 L	6.5	5.0	4.0	-3.0 ±	
9	MAIN ST	18+42.7	23.26L	6.5	5.0	4.0	-9.0 ±	
10	MAIN ST	20+11.2	22.23R	15.0	5.0	4.0	6.0 ±	
11	MAIN ST	20+44.6	19.98R	6.5	5.0	3.0	-3.2 ±	
14	MAIN ST	21+02.6	22.28L	6.5	5.0	3.0	-1.3 ±	



* = TOLERANCE FOR CONSTRUCTION ±0.5%
** = SEE MASSDOT STD E 107.6.5

NOTES:
DETECTABLE WARNING PANEL LOCATED NOT LESS THAN 6" OR MORE THAN 24" FROM THE ROADWAY EDGE (GUTTER LINE). TRUNCATED DOMES TO BE ALIGNED WITH DIRECTION OF TRAVEL.

ROADWAY, GUTTER AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS.



PEDESTRIAN RAMP
FOR NARROW SIDEWALK
NOT TO SCALE

PEDESTRIAN RAMP DETAIL FOR NARROW SIDEWALK										
WCR #	LOCATION	RAMP REFERENCE POINT		W WIDTH OF SIDEWALK (FT)	WIDTH OF RAMP (FT)	ROADWAY GUTTER SLOPE (%)		TRANSITION LENGTH		NOTES
		STATION	OFFSET			LEFT	RIGHT	LEFT	RIGHT	
1	MAN ST	13+22.3	19.43 L	5.0	5.0	-1.3 ±	-2.0 ±	6.50	9.00	
5	MAN ST	14+90.2	19.00R	5.0	5.0	-3.3 ±	-0.5±	6.50	7.67	
6	MAN ST	14+90.0	22.72L	5.0	5.0	-1.0 ±	8.0 ±	11.00	15.00	BOTH SIDES ARE HIGH
8	MAN ST	17+80.7	26.04L	5.0	5.0	3.9 ±	0.6 ±	14.00	6.50	
12	MAN ST	20+68.0	23.51L	5.0	5.0	-0.9 ±		7.67	N/A	
13	MAN ST	20+68.8	16.00R	5.0	5.0	-0.8 ±	-2.0 ±	6.50	9.00	

PEDESTRIAN RAMP FOR
ONE DIRECTION OF TRAVEL
NOT TO SCALE

PEDESTRIAN RAMP NOTES

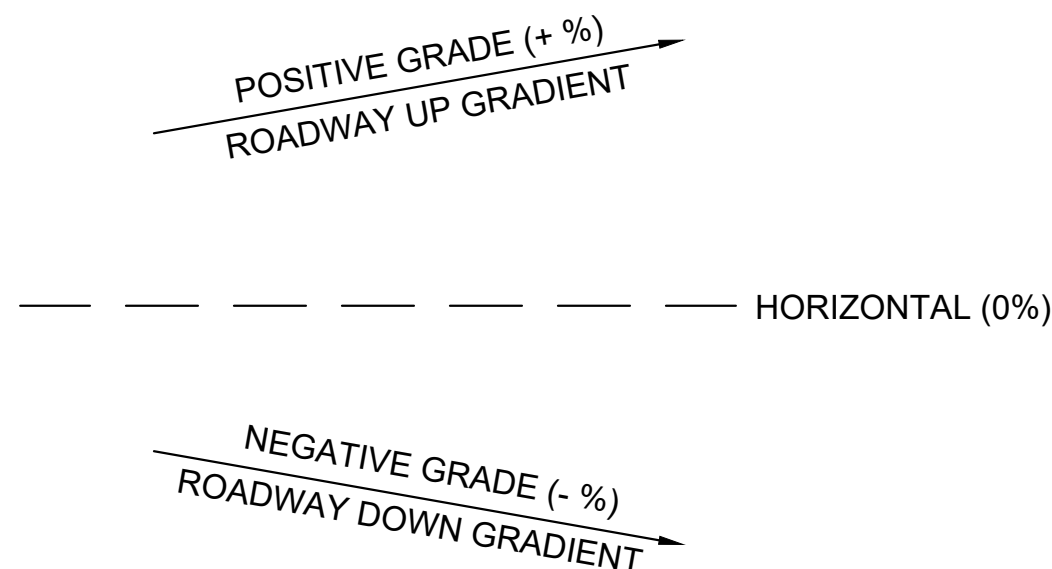
- ALL WHEELCHAIR RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE ARCHITECTURAL ACCESS BOARD (A.A.B.), THE AMERICANS WITH DISABILITIES ACT (ADA) AND MASSDOT HIGHWAY DIVISION.
- ALL PROPOSED CURB FOR WHEELCHAIR RAMP TRANSITIONS SHALL BE CUT AND TRANSITIONED AS NECESSARY TO PROVIDE THE CORRECT TRANSITION LENGTHS FOR EACH WHEELCHAIR RAMP, AS SHOWN ON THE WHEELCHAIR RAMP DETAILS OR AS DIRECTED BY THE ENGINEER.
- IN NO CASE, EXCEPT MAXIMUM LENGTH HIGH SIDE TRANSITIONS, SHALL ANY TRANSITION SLOPE OF ANY WHEELCHAIR RAMP EXCEED 7.5%. PROPOSED WHEELCHAIR RAMP SLOPES, ESPECIALLY HIGH SIDE TRANSITIONS, SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE POURING OF CONCRETE, AND ADJUSTED, IF NECESSARY, AT THE DIRECTION OF THE ENGINEER.
- THE LOCATION OF PROPOSED WHEELCHAIR RAMPS ARE SHOWN ON THE CONSTRUCTION PLANS AND THE WHEELCHAIR RAMP DATA SCHEDULE. EXACT LOCATIONS MAY BE ADJUSTED, IF NECESSARY, BY THE ENGINEER IN THE FIELD.
- DETECTABLE WARNING PANELS SHALL BE INSTALLED ON ALL WHEELCHAIR RAMPS IN ACCORDANCE WITH MASSACHUSETTS CONSTRUCTION STANDARD E 107.6.5 (2017).
- PROPOSED WHEELCHAIR RAMP SLOPES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE POURING OF CONCRETE, AND ADJUSTED, IF NECESSARY, TO CONFORM TO THE LATEST STANDARDS, AS DIRECTED BY THE ENGINEER.

TABLE 1	
PROFILE GRADE (%)	HIGH SIDE TRANSITION LENGTH FOR 7.5% DESIGN SLOPE (FT)*
0	6'-6"
0-1	7'-8"
1-2	9'-0"
2-3	11'-0"
3-4	14'-0"
>4	15'-0" MAX

PEDESTRIAN RAMP
HIGH SIDE TRANSITION LENGTHS

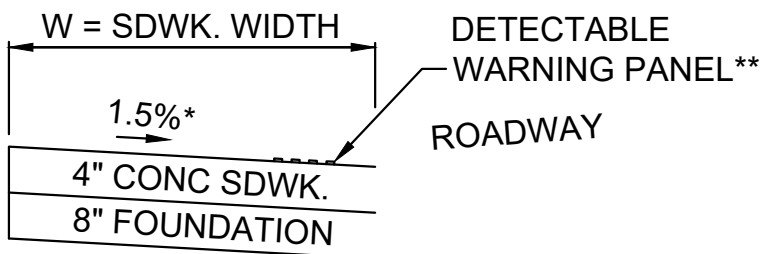
FIGURES ARE BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6"

* TOLERANCE FOR CONSTRUCTION ±0.5%



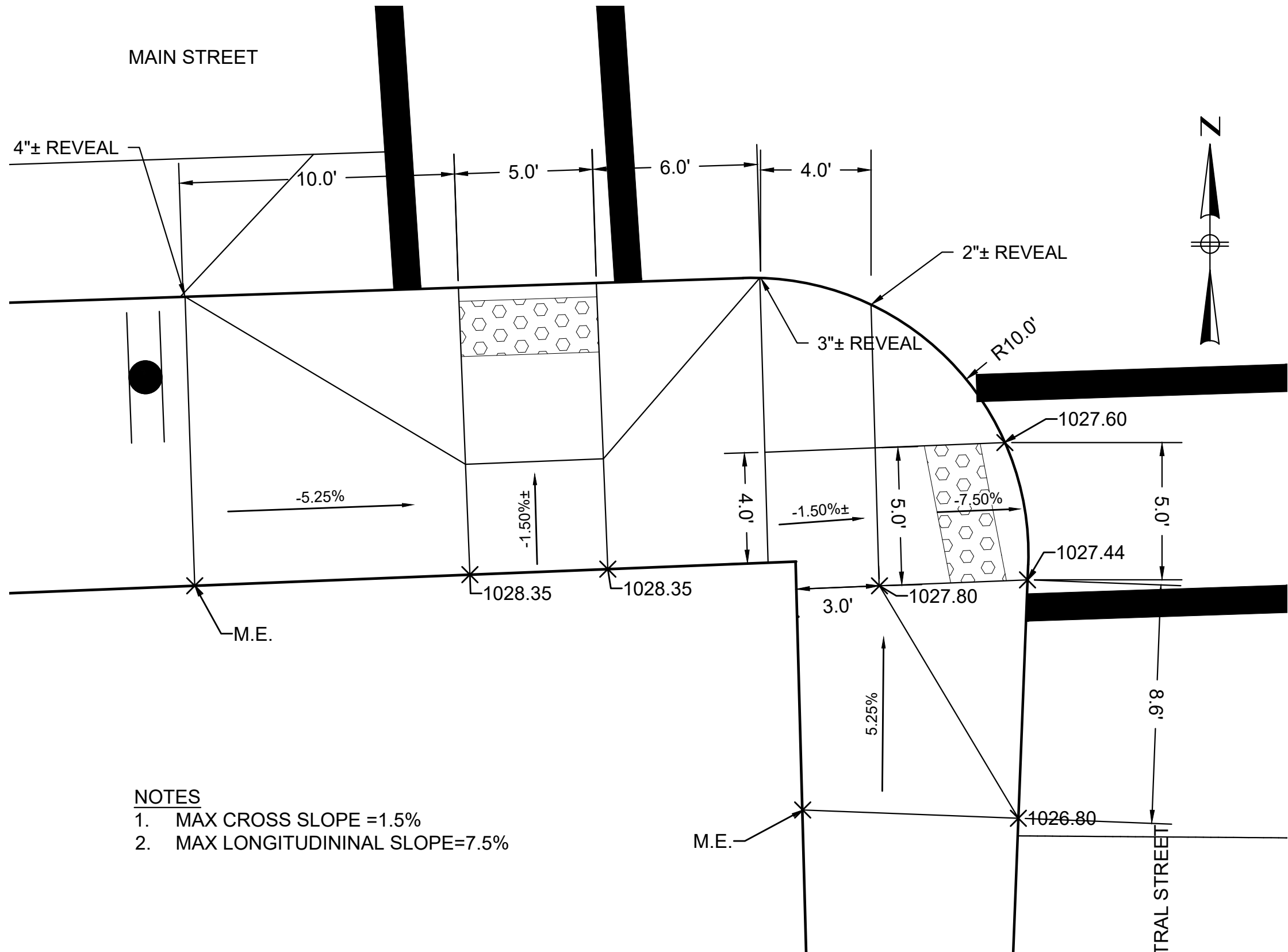
GUTTER SLOPE NOTATION DIAGRAM
NOT TO SCALE

NOTE: ALL GRADES VALUES HAVE BEEN CALCULATED AS VIEWED FROM THE CENTERLINE



NOTES:
ROADWAY, GUTTER AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS.

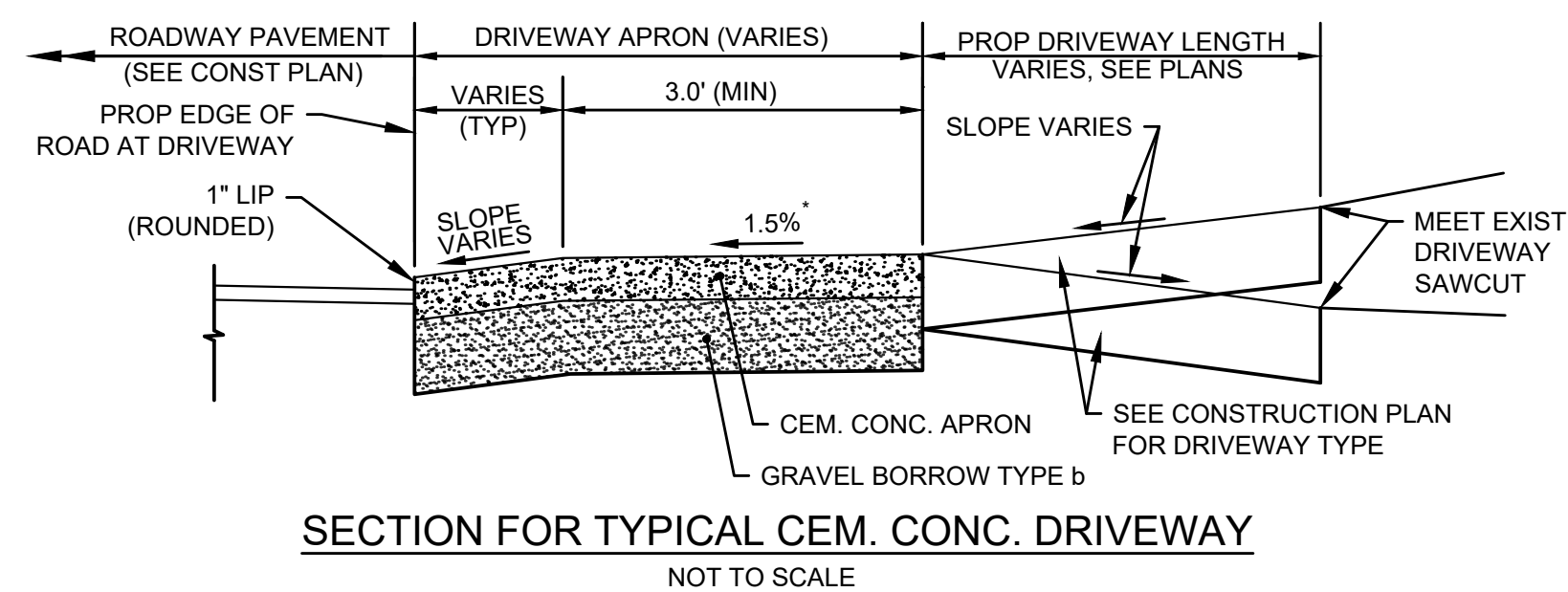
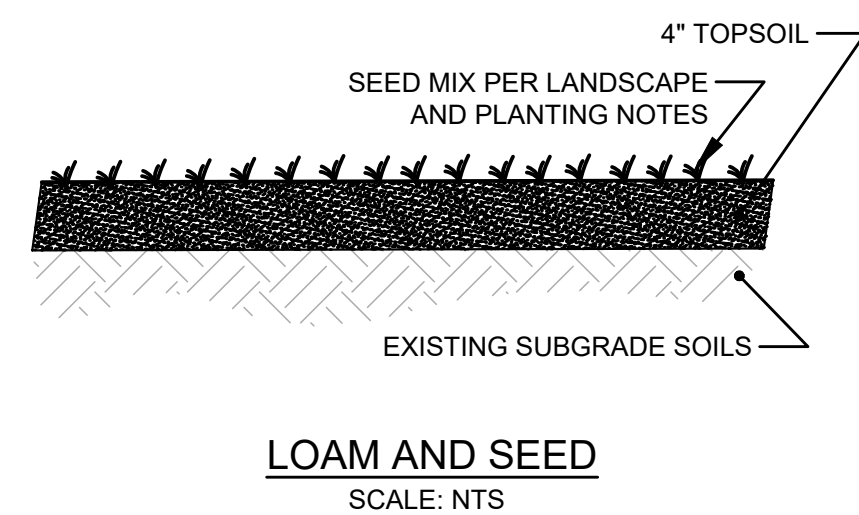
LEGEND
* = TOLERANCE FOR CONSTRUCTION ±0.5%
** = SEE MASSDOT STD E 107.6.5
W = SIDEWALK WIDTH



NOTES
1. MAX CROSS SLOPE =1.5%
2. MAX LONGITUDININAL SLOPE=7.5%

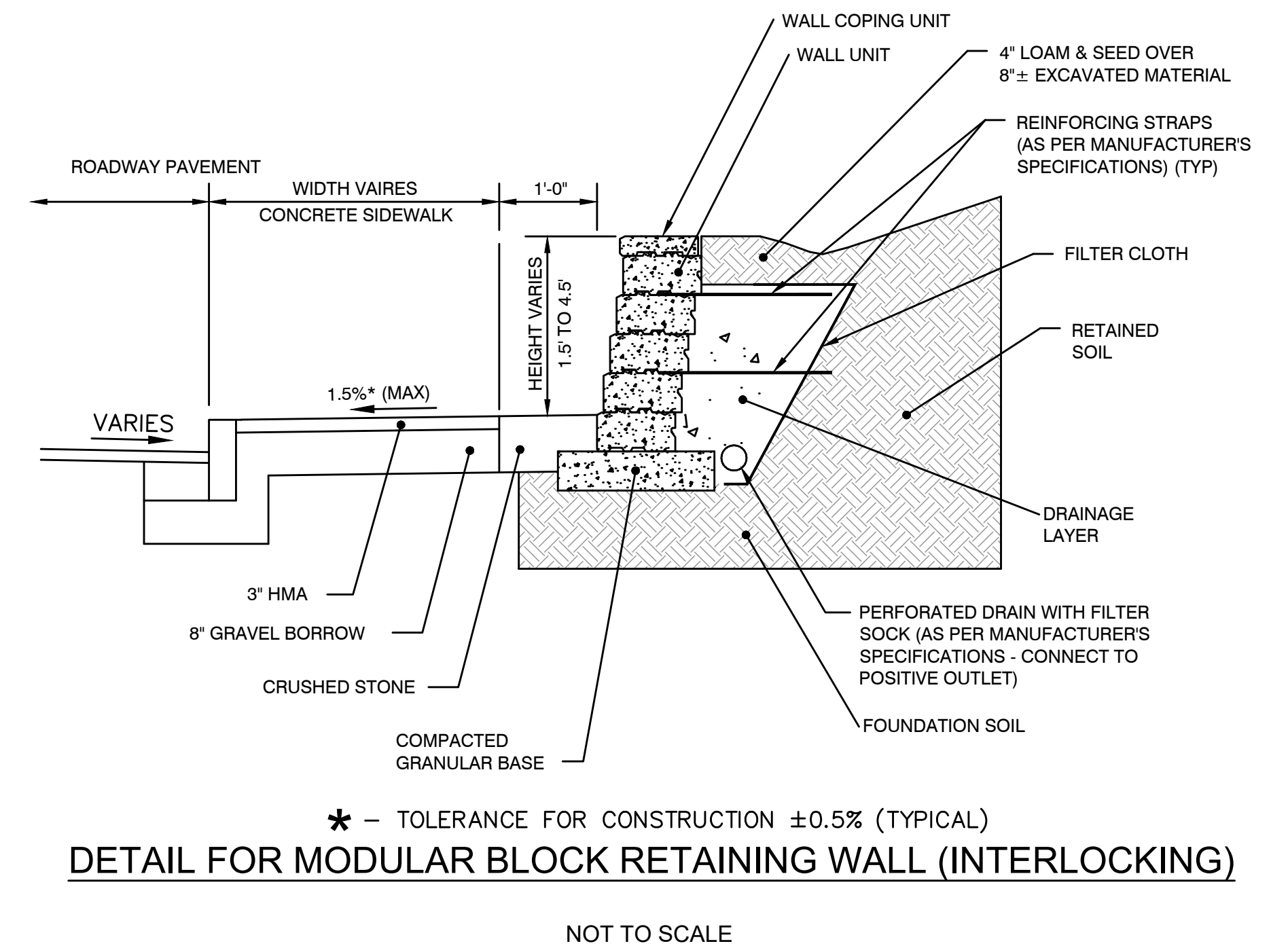
ENLARGED GRADING PLAN - PCR 2&3
SCALE:1"=4"

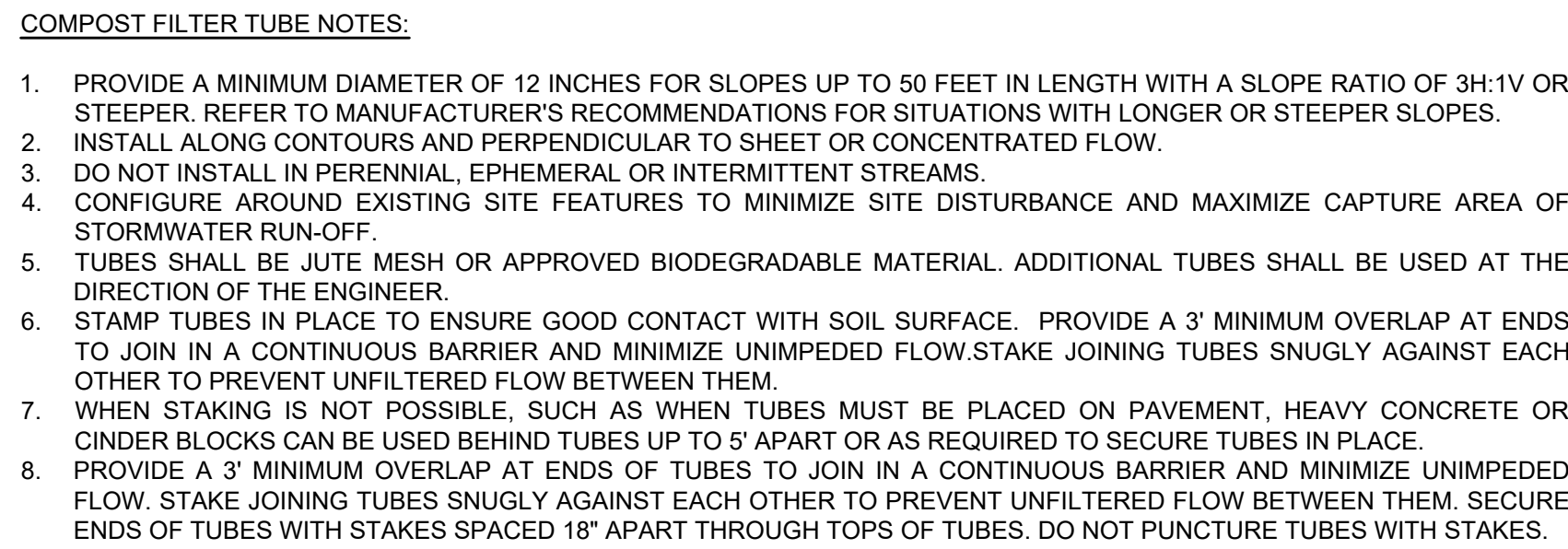
						DRAWN BY: JMC	REGISTERED PROFESSIONAL WILLIAM P. McGRATH CIVIL No: 33716 REGISTERED PROFESSIONAL	PREPARED BY BETA	SUBCONSULTANT	SCALE AS SHOWN	TITLE MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2 CONSTRUCTION DETAILS NO. 1 ASHBURNHAM, MA	BETA JOB NO. 10788
						DESIGNED BY: BB						ISSUE DATE 06/15/2023
						CHECKED BY: WPM						SHEET NO. 12 OF 21
NUMBER	DATE	MADE BY	CHECKED BY		REVISIONS							



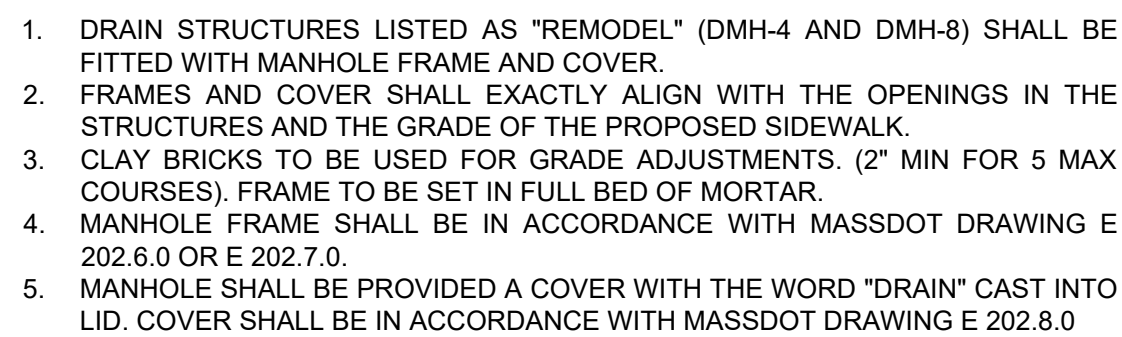
NOTES:

1. WHERE TWO VALUES ARE LISTED AS XX / XX, THE LEFT VALUE REFERS TO THE LEFT SIDE OF THE RAMP, AND THE RIGHT VALUE REFERS TO THE RIGHT SIDE OF THE RAMP.
2. APRON FOR DWY 4 TO BE CEMENT CONCRETE
3. LEFT SIDE OF DWY 9 REFLECTS TYPE B LAYOUT, RIGHT SIDE REFLECTS TYPE A LAYOUT.
4. DWY 15 IS AN EXISTING DRIVEWAY. ONLY THE RIGHT TRANSITION RAMP WILL BE CONSTRUCTED UNDER THIS PROJECT.





SCALE: NTS



Technical drawing of a curb and gutter cross-section. The curb is 6 inches wide and 7 inches high. The gutter is 24 inches wide. The gutter has a 2-inch deep flange and an 8-inch high curb. The gutter is 22 inches wide at the bottom and 32 inches wide at the top. The gutter is labeled "CURB INLET".

1. EXISTING FRAME AND GRATES SHALL BE RETAINED AND RE-USED TO EXTENT PRACTICABLE. NEW FRAME AND GRATES SHALL BE PROVIDED ONLY WITH APPROVAL OF THE TOWN.
2. FRAMES AND GRATE SHALL EXACTLY ALIGN WITH THE OPENINGS IN THE STRUCTURES AND THE GRADE OF THE EXISTING ROADWAY.
3. DRAIN STRUCTURES LISTED AS "ADJ" SHALL HAVE THEIR CATCH BASIN FRAME MODIFIED, OR BE PROVIDED WITH NEW FRAME, SUCH THAT THE INLET IS FLUSH WITH THE PROPOSED GUTTER LINE.
5. NEW GRATES SHALL BE HOOK LOCK CASCADE GRATE MEETING MASSDOT STANDARD E 201.7.0 / E 201.7.1 OR APPROVED EQUAL.

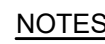
1. CONTRACTOR SHALL MAINTAIN ALL CATCH BASIN SEDIMENT CONTROL DEVICE INSTALLATIONS AND REPLACE WHEN SATURATED WITH SEDIMENT BASED ON MANUFACTURER RECOMMENDATIONS. SILT SACK SHALL BE INSPECTED AFTER EVERY RAIN EVENT BUT NO LONGER THAN EVERY TWO WEEKS.
2. SILT SACK SHALL BE DOUBLE NEEDLE SEWN POLYPROPYLENE GEOTEXTILE FABRIC AND RATED FOR HIGH FLOW UNLESS OTHERWISE DIRECTED.
3. CONTRACTOR SHALL PROVIDE CURB OPENING DEFLECTOR AT ALL CATCH BASINS AS NECESSARY.


NOT TO SCALE

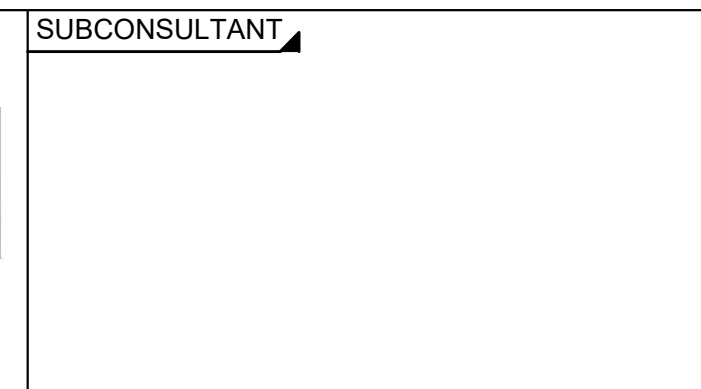


1. MINIMUM CLEAR PATH ON ALL SIDEWALKS SHALL BE 36 INCHES, EXCLUDING THE CURB.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL OBJECTS (SIGNS, POLES, ETC.) TO BE SET WITHIN SIDEWALK PRIOR TO FINAL PLACEMENT TO PROVIDE A MINIMUM CLEAR PATH OF 36 INCHES NOT INCLUDING CURB. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY LOCATION WHICH CANNOT MEET THE CLEARANCE REQUIREMENTS.

* TOLERANCE FOR CONSTRUCTION $\pm 0.5\%$

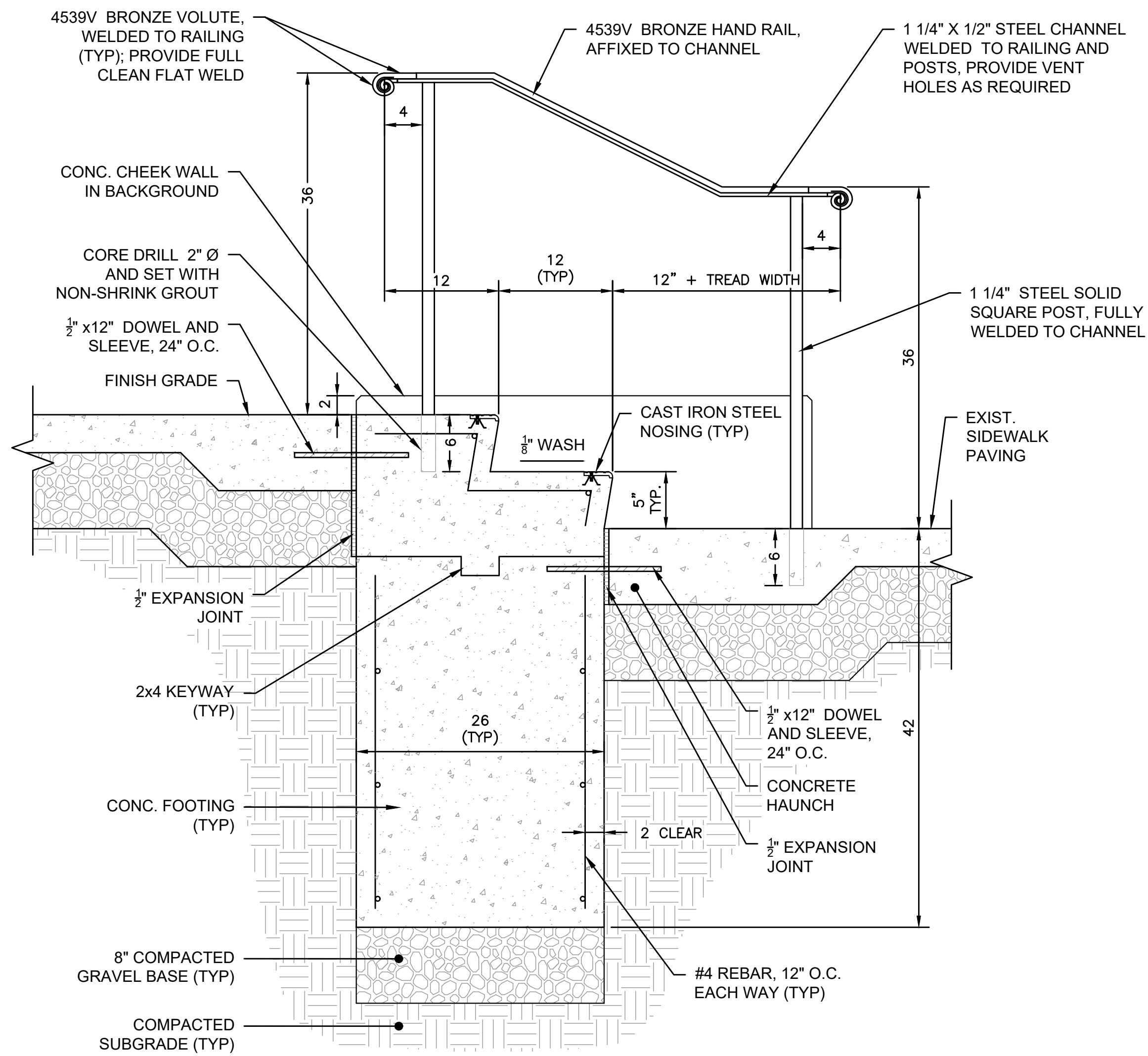


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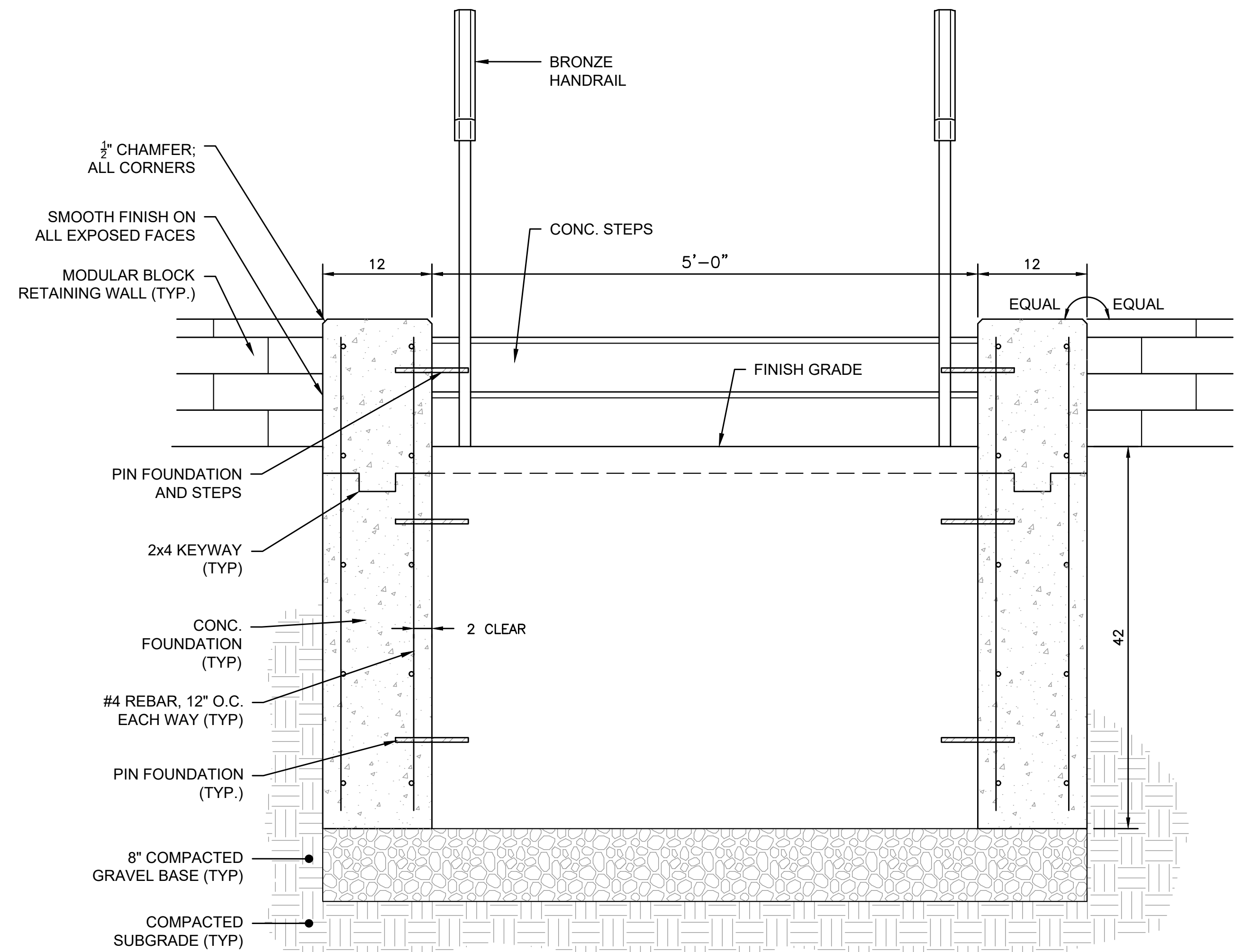


TITLE
MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2
CONSTRUCTION DETAILS NO. 3
ASHBURNHAM, MA

6/16/2023 9:34 AM I:\BETA\INC\COM\ITRANS\10700\10788 - MAIN ST SIDEWALKS - PH 2 - ASHBURNHAM\DRAWINGFILES\PLANSET\10788_CONSTRUCTION DETAILS.DWG (BETA STE BW.STB)



CONCRETE STAIR AND HANDRAIL
NOT TO SCALE



CONCRETE STAIR AND HANDRAIL SECTION ELEVATION
NOT TO SCALE

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BB

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TITLE

MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2

CONSTRUCTION DETAILS NO. 4

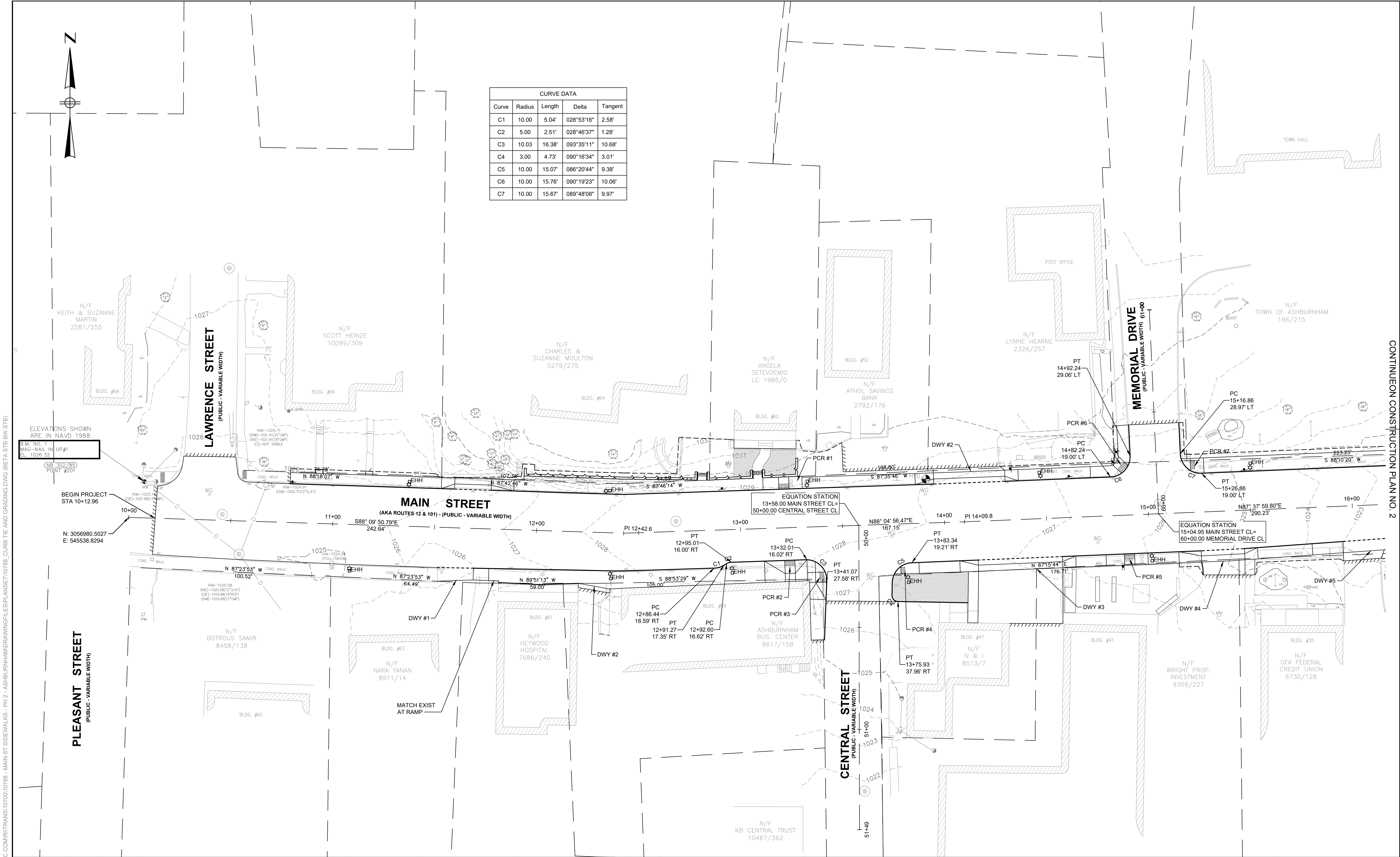
ASHBURNHAM, MA

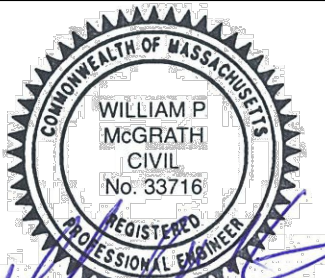


BETA JOB NO. 10788

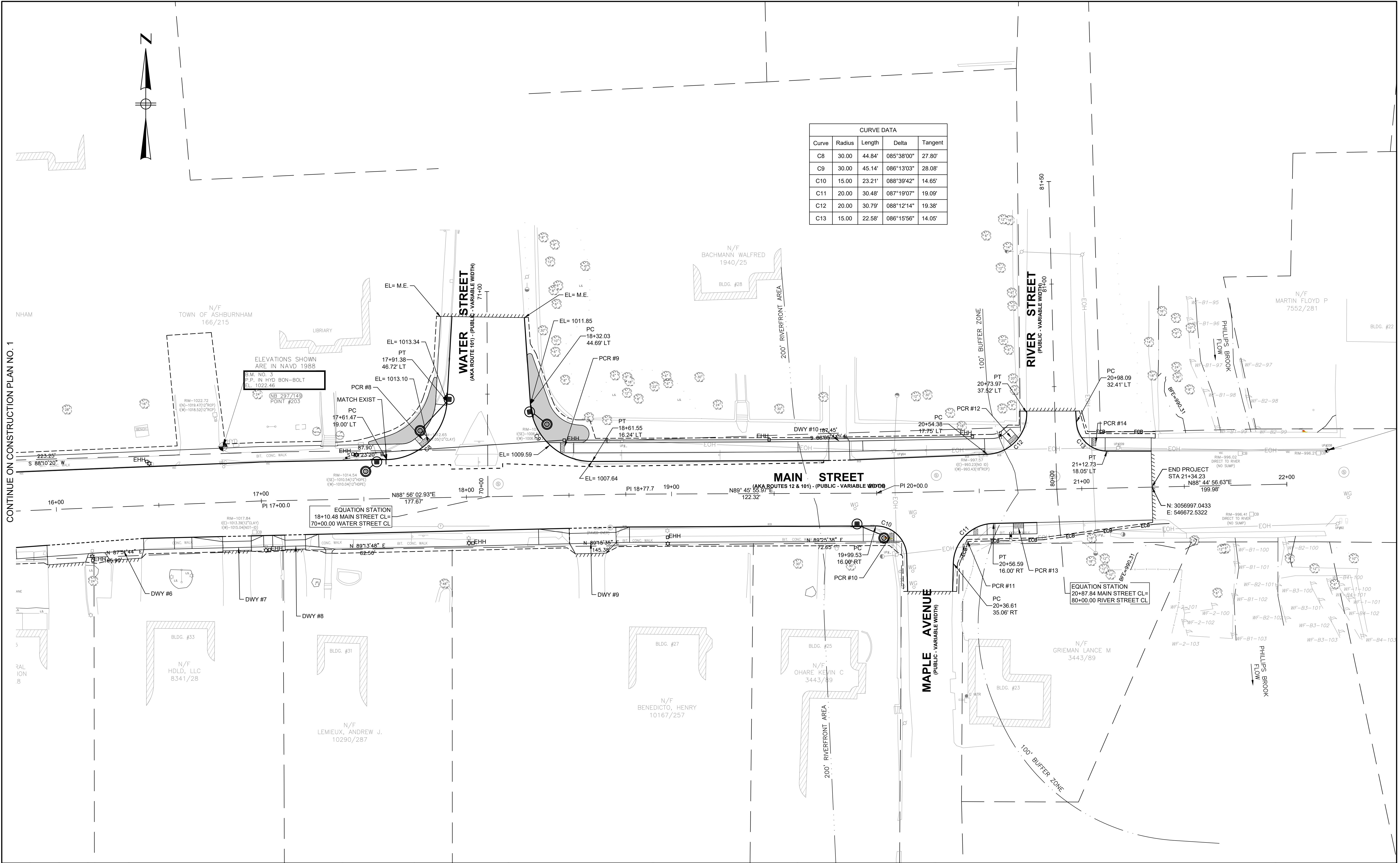
ISSUE DATE 06/15/2023

SHEET NO. 15 OF 21

6/16/2023 9:34 AM I:\BETA-INC.COM\PROJECTS\107001\10788 - MAIN ST SIDEWALKS - PH 2 - ASHBURNHAM\DRAWINGFILES\PLANSET\10788 - CURB TIE AND GRADING.DWG (BETA STB BW.STB)



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NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS	DESIGNED BY: BB	CHECKED BY: WPM					



CURVE DATA				
Curve	Radius	Length	Delta	Tangent
C8	30.00	44.84'	085°38'00"	27.80'
C9	30.00	45.14'	086°13'03"	28.08'
C10	15.00	23.21'	088°39'42"	14.65'
C11	20.00	30.48'	087°19'07"	19.09'
C12	20.00	30.79'	088°12'14"	19.38'
C13	15.00	22.58'	086°15'56"	14.05'

CONTINUE ON CONSTRUCTION PLAN NO. 1

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

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JMC
DESIGNED BY:
BB
CHECKED BY:
WPM

REGISTERED PROFESSIONAL
WILLIAM P. MCGRATH
CIVIL
No. 33716
MASSACHUSETTS
6/15/23

PREPARED BY
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www.BETA-Inc.com

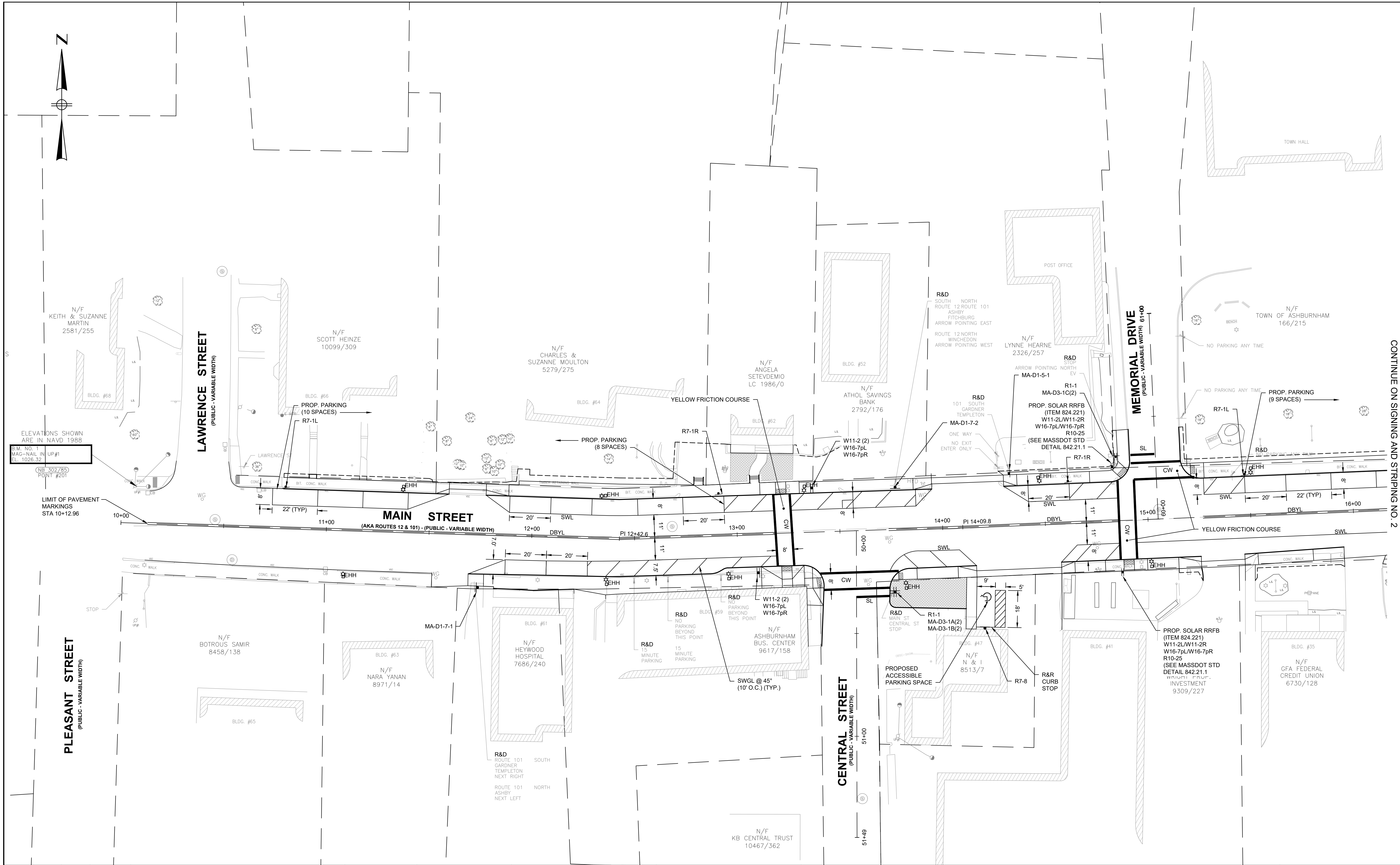
SUBCONSULTANT

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SCALE IN FEET: 1"=20'
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TITLE
MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2
CURB TIE AND GRADING NO. 2
ASHBURNHAM, MA

BETA JOB NO. 10788
ISSUE DATE 06/15/2023
SHEET NO. 17 OF 21

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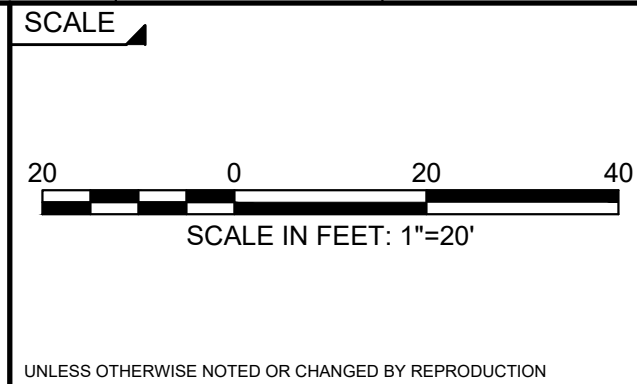
CONTINUE ON SIGNING AND STRIPING NO. 2

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TITLE

MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2

SIGNING AND STRIPING NO. 1



ASHBURNHAM, MA

BETA JOB NO. 10788
ISSUE DATE 06/15/2023
SHEET NO. 18 OF 21

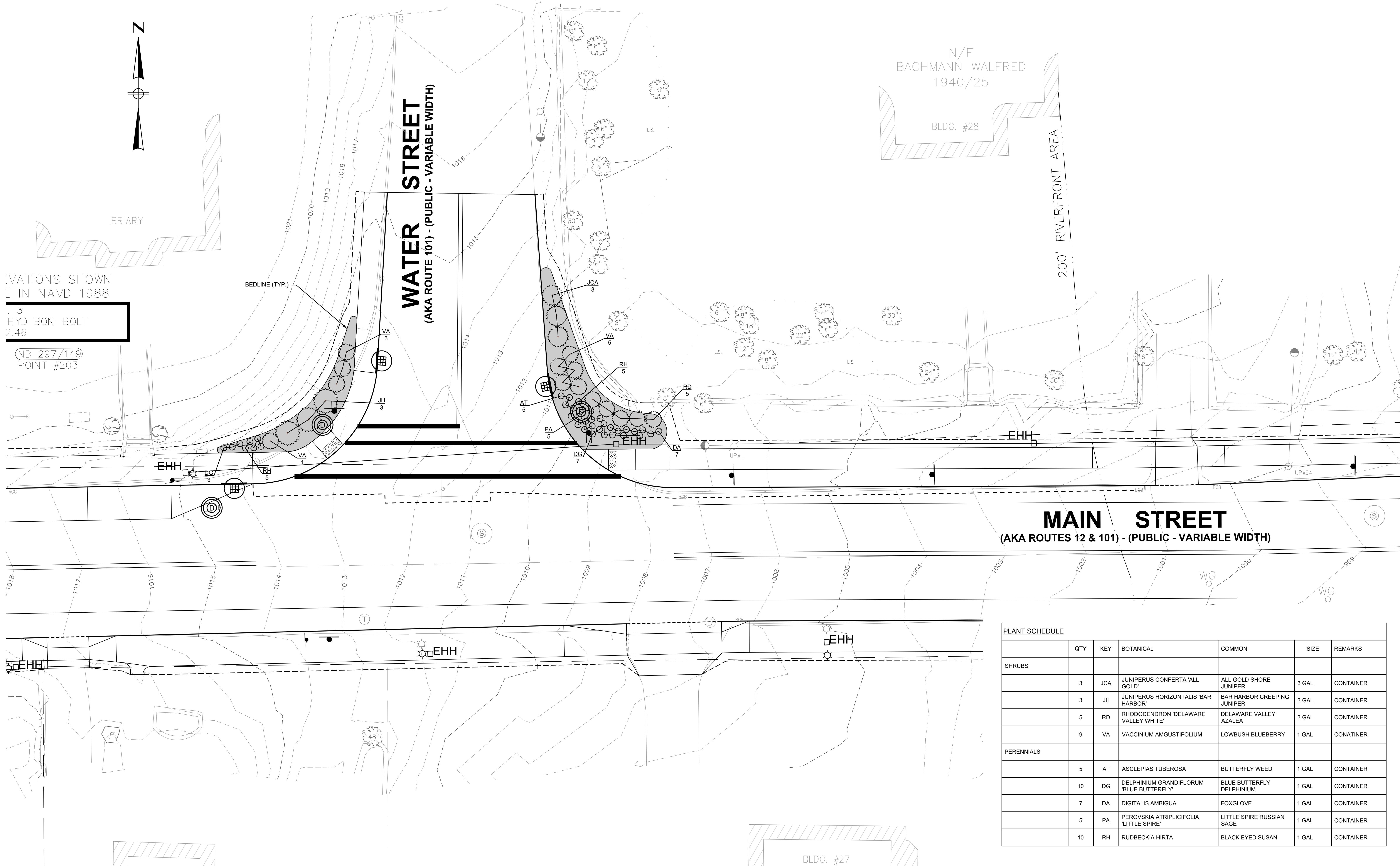
SEE 2009 MUTCD
STANDARDS

SEE MASSDOT
STANDARDS

1. HIGH INTENSITY ENCAPSULATED LENS REFLECTIVE SHEETING CONFORMING TO SECTION M9:30.0, TYPE III OR IV, OF THE MASSDOT STANDARD SPECIFICATIONS SHALL BE USED FOR ALL SIGNS.
2. ALL P5 POSTS SHALL BE TELESCOPIC, RECTANGULAR TYPE POSTS, CONFORMING TO THE DIMENSIONS AND REQUIREMENTS OF THE MASSDOT "STANDARD DRAWINGS FOR SIGNS AND SUPPORTS" (LATEST EDITION).
3. SEE THE 2009 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND "STANDARD HIGHWAY SIGNS" FOR THE LATEST SPECIFICATIONS ON TEXT DIMENSIONS AND COLOR. (ALSO SEE SECTION M9.30.0 TYPE III MASSDOT STANDARD SPECIFICATION, THE "MASSACHUSETTS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES," AND "GUIDE SIGN POLICY FOR SECONDARY STATE HIGHWAYS" (LATEST EDITIONS) BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION).
4. ALL POST-MOUNTED STREET NAME SIGNS SHALL BE PAINTED ONE SIDE AND SHALL USE TWO SIGNS MOUNTED BACK TO BACK WITH BOLT-THROUGH METHOD.
5. FYG: FLUORESCENT YELLOW GREEN.

					DRAWN BY: JMC	 	SUBCONSULTANT	SCALE NONE	TITLE MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2 TRAFFIC SIGN SUMMARY NO.1 ASHBURNHAM, MA	BETA JOB NO. _____ 10788
					DESIGNED BY: BB					ISSUE DATE _____ 06/15/2023
					CHECKED BY: WPM					SHEET NO. _____ 20 OF 21
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PLANT SCHEDULE						
	QTY	KEY	BOTANICAL	COMMON	SIZE	REMARKS
SHRUBS						
	3	JCA	JUNIPERUS CONFERTA 'ALL GOLD'	ALL GOLD SHORE JUNIPER	3 GAL	CONTAINER
	3	JH	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR CREEPING JUNIPER	3 GAL	CONTAINER
	5	RD	RHODODENDRON 'DELAWARE VALLEY WHITE'	DELAWARE VALLEY AZALEA	3 GAL	CONTAINER
	9	VA	VACCINIUM AMGUSTIFOLIUM	LOWBUSH BLUEBERRY	1 GAL	CONATINER
PERENNIALS						
	5	AT	ASCLEPIAS TUBEROSA	BUTTERFLY WEED	1 GAL	CONTAINER
	10	DG	DELPHINIUM GRANDIFLORUM 'BLUE BUTTERFLY'	BLUE BUTTERFLY DELPHINIUM	1 GAL	CONTAINER
	7	DA	DIGITALIS AMBIGUA	FOXGLOVE	1 GAL	CONTAINER
	5	PA	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	1 GAL	CONTAINER
	10	RH	RUDBECKIA HIRTA	BLACK EYED SUSAN	1 GAL	CONTAINER

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BB
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WPM

REGISTERED PROFESSIONAL
WILLIAM P. MCGRATH
CIVIL
No. 33716
REGISTERED PROFESSIONAL ENGINEER
STATE OF MASSACHUSETTS
6/15/23

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TITLE
MAIN STREET SIDEWALK IMPROVEMENTS - PHASE 2
PLANTING PLAN NO.1
ASHBURNHAM, MA

BETA JOB NO. 10788
ISSUE DATE 06/15/2023
SHEET NO. 21 OF 21